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THE ARCHITECTURAL RECORD

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Chelmsford
Gray Granite



*Lowell High School, Lowell, Mass.
Henry L. Rourke, Architect.*



*Detail—Note Granite steps, base, water-table,
and window sills.*

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FIG. 1.

RIVER SPAN OF THE HUNTER STREET BRIDGE, PETERBOROUGH, ONTARIO, CANADA.
FRANK BARBER, ENGINEER. CLAUDE BRAGDON, ARCHITECT.

THE ARCHITECTURAL RECORD

VOLUME LIII



NUMBER 292

JANUARY, 1923

ABSTRACT THOUGHTS ON CONCRETE BRIDGES



BY CLAUDE BRAGDON, F.A.I.A.

IN any collaboration between an architect and an engineer, however well agreed upon their division of labor may be, the *function* of each usually remains undefined—taken for granted, but not clearly understood.

Now if architect and engineer are not in ideal metaphysical agreement, this fact is bound to publish itself in the work itself, which will be the projection upon the plane of materiality, not of a unified, but of a divided consciousness.

An eminent Canadian engineer, Mr. Frank Barber, and the writer, in the course of their collaboration on some reinforced concrete bridges, often discussed their relation to one another and to the work in hand, seeking to discover and define it. This led to an inquiry into the nature of concrete construction: wherein it was different from steel and stone—its uniqueness, in point of fact—

and to a search for appropriate forms through which this uniqueness might be expressed.

At the request of the editor of THE ARCHITECTURAL RECORD some of their findings with regard to these and other matters are here set forth.

It was agreed between the two at the outset that the function of the engineer was to discover and develop, under the imposed conditions, and within the given limitations, that particular form of bridge which would meet most fully the requirements from the standpoint of economy, efficiency and endurance; but the function of the architect, in his associated capacity, aside from the recognition that he was a purveyor of beauty, was not so easy to describe or define. The two got nowhere until a single word, struck out in the heat of discussion, illuminated the subject with new light. That word was "dramatize,"

and for them both, from that moment, the architect became the dramatic artist, his function being to express, as clearly and eloquently as possible, everything that needed to be and could be expressed—tell what the bridge was “for”; tell what was happening in its structure; show forth the beautiful necessity of its being just as it was and not otherwise.

In compassing this there must be nothing done by the architect detrimental to strength, efficiency, utility; that is, he must never sacrifice practical and structural for merely aesthetic values—analogue to putting a woman in high-heeled shoes which are supposed to add piquancy to her appearance, but which interfere with her gait. The two adopted Emerson’s dictum: “Any increase in fitness is also an increase in beauty,” as the slogan of their every campaign; but they sought also for that higher power of beauty which comes from color, proportion, rhythm, and for the enhancement of interest and the enchantment of vision by any means the architect could command.

How can beauty be achieved, they asked themselves, in bridges of this type? Concrete as it comes from the forms is an uninteresting, if not a positively ugly material, both in color and texture. It lends itself with an ill grace to the canonical architectural motifs: associated as these are with stone construction, when translated into concrete they appear, and appear truly, an imitation and a sham.

But these difficulties, which daunt and discourage the architect, should rather inspire him—inspire him, that is, to discover for this material pleasing surface textures and appropriate and expressive forms peculiar to it alone. His business is to accept this material, imposed by economic necessity, and deal with it as best he may; failing to at least attempt this, he acknowledges his impotence.

Concrete is easily and cheaply made; it permits the use of unskilled labor; it is of amazing strength, suffers little deterioration, and the cost of upkeep of a concrete bridge as compared with steel is

small. So, until something better and cheaper takes its place, bridges will continue to be built of reinforced concrete, and they will continue to be unbeautiful—save in the sense that so necessitous a thing has a beauty all its own—until some one who is able to do so charms away the “curse.” That this is the architect’s particular job is clear.

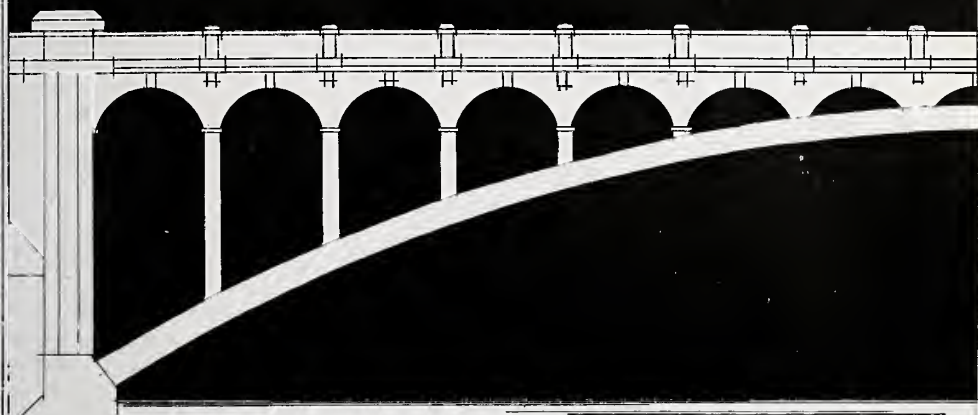
So far as the texture and color of concrete are concerned, these are problems which have been successfully dealt with already. By the use of colored sand, pebbles, granite chips, by brushing, crandalling and chiseling, the slaty, cheese-like surface may be done away with, the only deterrent being the increased expense. But the more basic and important problem of finding fresh forms and appropriate motifs for this new method of construction has never been seriously and intelligently attacked.

This illustrates anew the fact that the human mind works in a worn groove if it can. With the advent of the first steam locomotive the best that could be thought of in the way of a carrier was to put flanges on the wheels of stage coaches to keep them on the track, and let it go at that. Similarly, today, notwithstanding a fundamental and far-reaching change in the material and method of construction of masonry bridges, we continue to reproduce, with slight modifications, the same forms which our predecessors produced in stone.

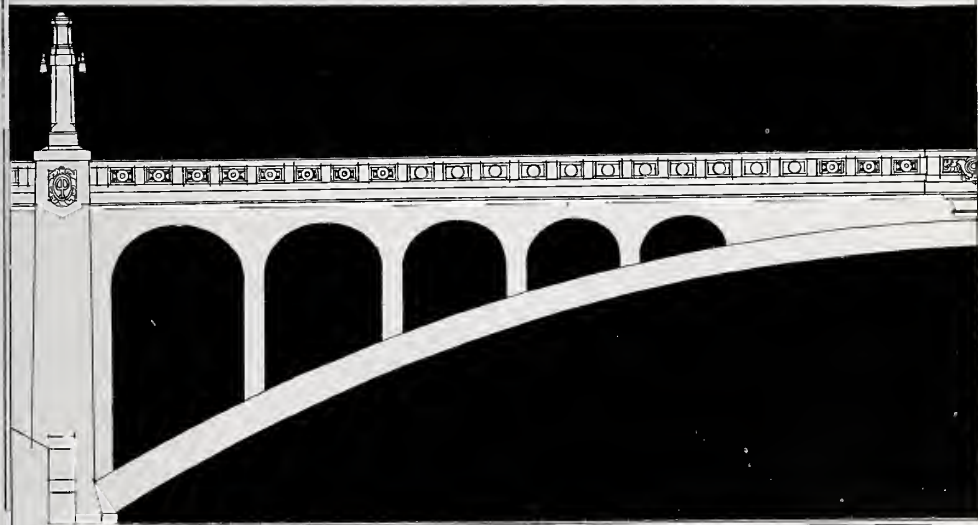
What is the really distinguishing difference between these two types of masonry structure—stone, and concrete reinforced with steel? It is that the first is *built*, stone by stone, and the second is *poured*, layer by layer. This is a most important difference, and might be expected to publish itself to the eye at a glance.

It was along such lines as these that the two collaborators reasoned, and they resolved to submit their theory to every possible practical test.

The first bridge built by them—and the only one completed up to the present time—spans the Otonabee at Peterborough, Ontario, Canada, and is known locally as the Hunter Street Bridge (Fig. 1). It is a



THE STRUCTURAL ELEMENTS OF THE PETERBORO BRIDGE AS DEFINED BY THE ENGINEER IN HIS PRELIMINARY DRAWING FOR THE ARCHITECT.



THESE ELEMENTS DEALT WITH AND ARRANGED BY THE ARCHITECT AS SHOWN IN THE COMPLETED STRUCTURE—THE ROADWAY HAS BEEN CROWNED TOWARD THE CENTER OF ITS LENGTH TO "LIFT" THE LONG HORIZONTAL, A LOOKOUT BALCONY HAS BEEN INTRODUCED TO "BREAK" IT, THE ARCHES HAVE BEEN MADE ELLIPTICAL, AND RHYTHMICALLY SPACED

FIG. 2.

THE PROPOSED TODMORDEN-LEASIDE BRIDGE OVER
THE DON VALLEY, TORONTO, ONTARIO, CANADA.
FRANK BARBER, ENGINEER.
CLAUDE BRAGDON, ARCHITECT.

sufficiently conventional looking structure, in general design following a familiar pattern, but exhibiting also some interesting departures from precedent. A comparison of the form it first assumed at the hands of the engineer, and the modifications that this form underwent when dealt with by the architect, should make evident, in a definite and detailed way, the results attained by such a

collaboration as has been described — one in which the architect had a hand in the proceedings from the start. It usually happens in work of this kind that he is called in only at the last moment to spread a frosting of architectural embellishment over the already well-baked cake of the engineer.

In the case of the Peterborough bridge the engineer first determined its main lines in accordance with practical and structural necessity — the width of the

they are important—"the little more and how much it is," in the words of Robert Browning.

The arches of the arcade supporting the roadway, instead of being all the same width, are proportionally diminished toward the center, and the semi-circular curves have been translated into ellipses. The eye is more completely satisfied because the method of nature has been followed: "rhythmic diminution" we everywhere discover; circles are rarely met with, while ellipsoids abound.

The next important modification was introduced to overcome an optical illusion. The Greeks, as is well known, "crowned" the long horizontal lines of their temples, which lines, if mathematically straight, would appear to sag. In obedience to the same beautiful necessity the long parallel lines of the roadway and parapet have been sprung upward toward the center of the span, and to still further diminish the severity and monotony of the long line of the top of the bridge against the sky, a little projecting balcony has been introduced, which serves a useful, as well as an aesthetic purpose, in that one may there pause to view the panorama of the river without impeding, or being impeded by less idly-disposed pedestrians.

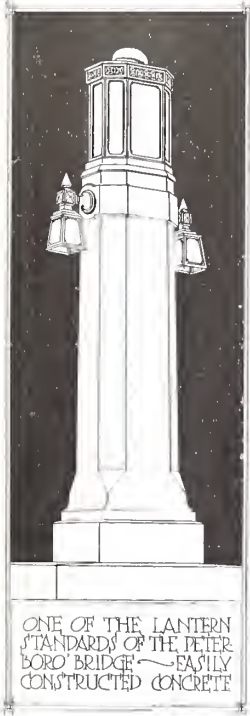


FIG. 3.

roadway, the length and height of the main span, the character of the approaches, etc. These findings he embodied in diagrammatic drawings, which were then submitted to the architect, whose business it was to deal with the design in such a way that it should speak to the eye with a convincing eloquence, satisfying alike to the rational mind and to the aesthetic sense.

The upper drawing in Figure 2 shows the bridge as designed by the engineer, intent solely on the practical aspect of the problem. The lower drawing shows the modifications introduced by the architect. These are not many, nor marked, but

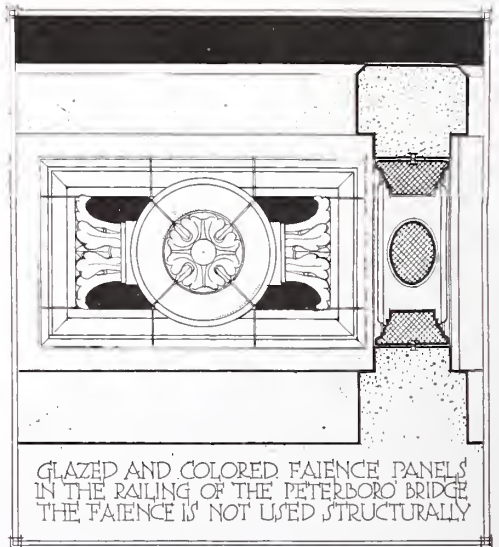


FIG. 4.

The tremendous abutments of the main arch ring, buried, so to speak, out of sight, have been made to declare themselves to the eye by the carrying upward tapered antæ which terminate, at the balustrade level, in four electric light standards, defining to the eye at a glance the limits of the principal span.

These standards (Figure 3) are of a form unassociated with any of the historic architectural styles, being directly derived from, and determined by, the necessities of the case—that of providing an elevated lantern-support, not cut and built by a mason, but moulded in a wooden form made by a carpenter. The shape of this support—a slightly tapered parallelepipedon with broadly chamfered edges—declares its genesis: it suggests the plane and hammer more than the

trowel and plumb-line. It is "honest," in other words, and at the same time not unbeautiful.

But its beauty, and the beauty of the rest of the bridge thus far considered, is of a more or less negative kind. The need of a somewhat more positive appeal to the aesthetic sense was deeply felt—shapes more subtle, colors more luminous than cast cement could yield. Accordingly, the architect conceived the idea of introducing colored faïence, used purely for ornament, protected as much as possible, and subjected to no structural strain, combining the two materials in such a way that they could be set independently of one another.

Figure 4 shows a section of the parapet and its inset of colored faïence in the shape of a perforated panel. Figure 5

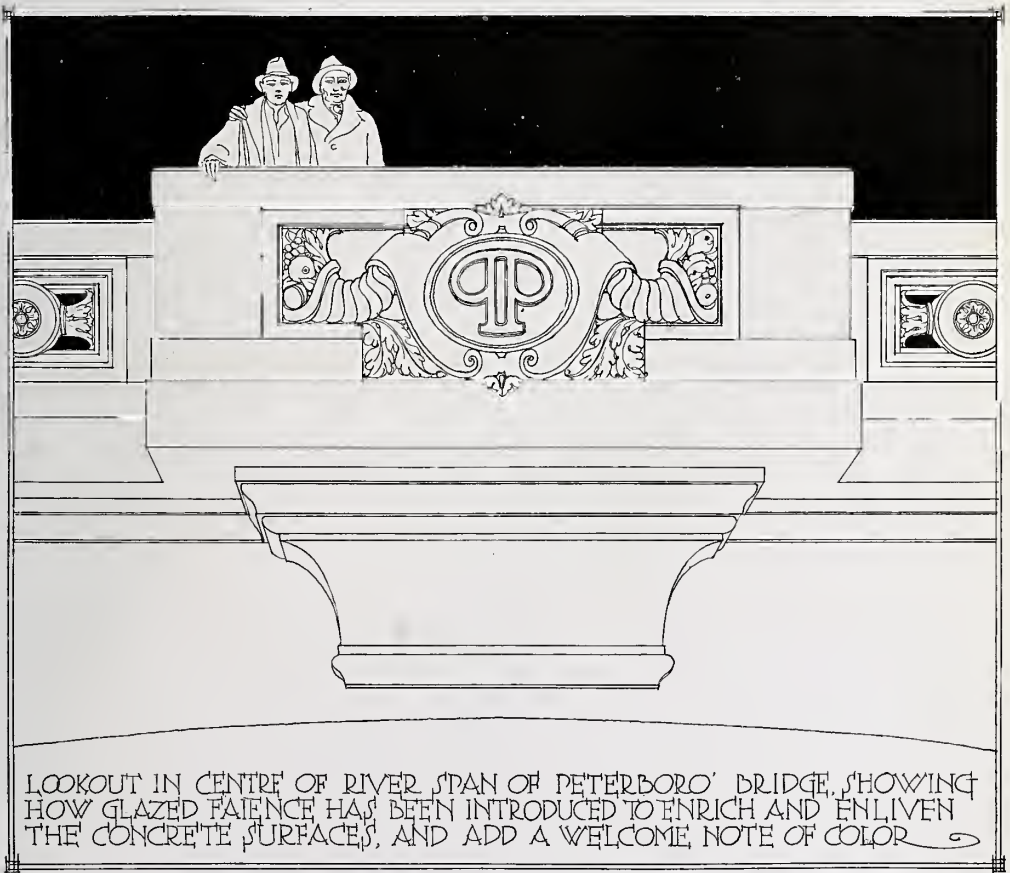


FIG. 5.



FIG. 6.

shows the outside face of the balcony before referred to: a cartouche bearing a double "P" flanked by cornucopias of fruits and grains. The colors are cream white, deep blue, an earthy yellow and a mineral green. These, in their field of warm-toned cement, mingle pleasingly, and yield that final note of individuality and distinction whereby a work of utility is "chemicalized" into a work of art.

Figure 6 represents a little bridge near Toronto for which the architect was appealed to mainly to provide an inexpensive but effective balustrade which could be fabricated on the spot—something less pretentious than the classic die and baluster, but more so than its deadly alternative of plain paneled cement. The achieved result was arrived at by a single-minded search for a form that could be made with boards by anyone capable of handling a saw and hammer. This paneled parapet, punctuated by its hexagonal perforations, yields a pleasing pattern, and looks as though it were cast. Figure 7 shows the wooden form itself, and indicates how directly the design was derived from the material and method of construction.

The next large engineering project—and as yet only a project—with which the two collaborators occupied themselves, was the Todmorden-Leaside bridge over

the valley of the Don, in the environs of Toronto (Figure 9). Encouraged by the success of their first venture they carried their radicalism further. The sequence followed was the same: the upper drawing of Figure 8 is a section of that furnished the architect by the engineer, after he had surveyed the site, tested the foundations, and made himself familiar with conditions generally. It is easy to identify the design as an attenuated variant on the Roman aqueduct model—one so fundamentally sound that it has persisted to the present day. Why, then, the architect asked himself, should it appear

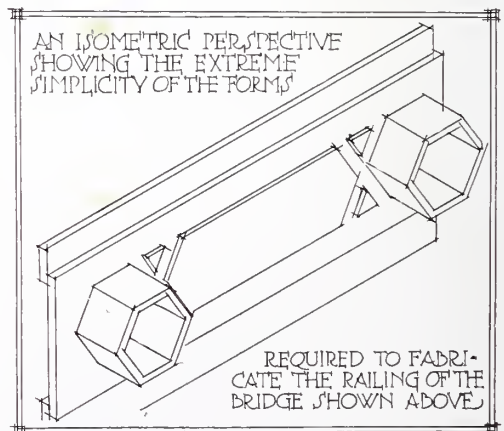
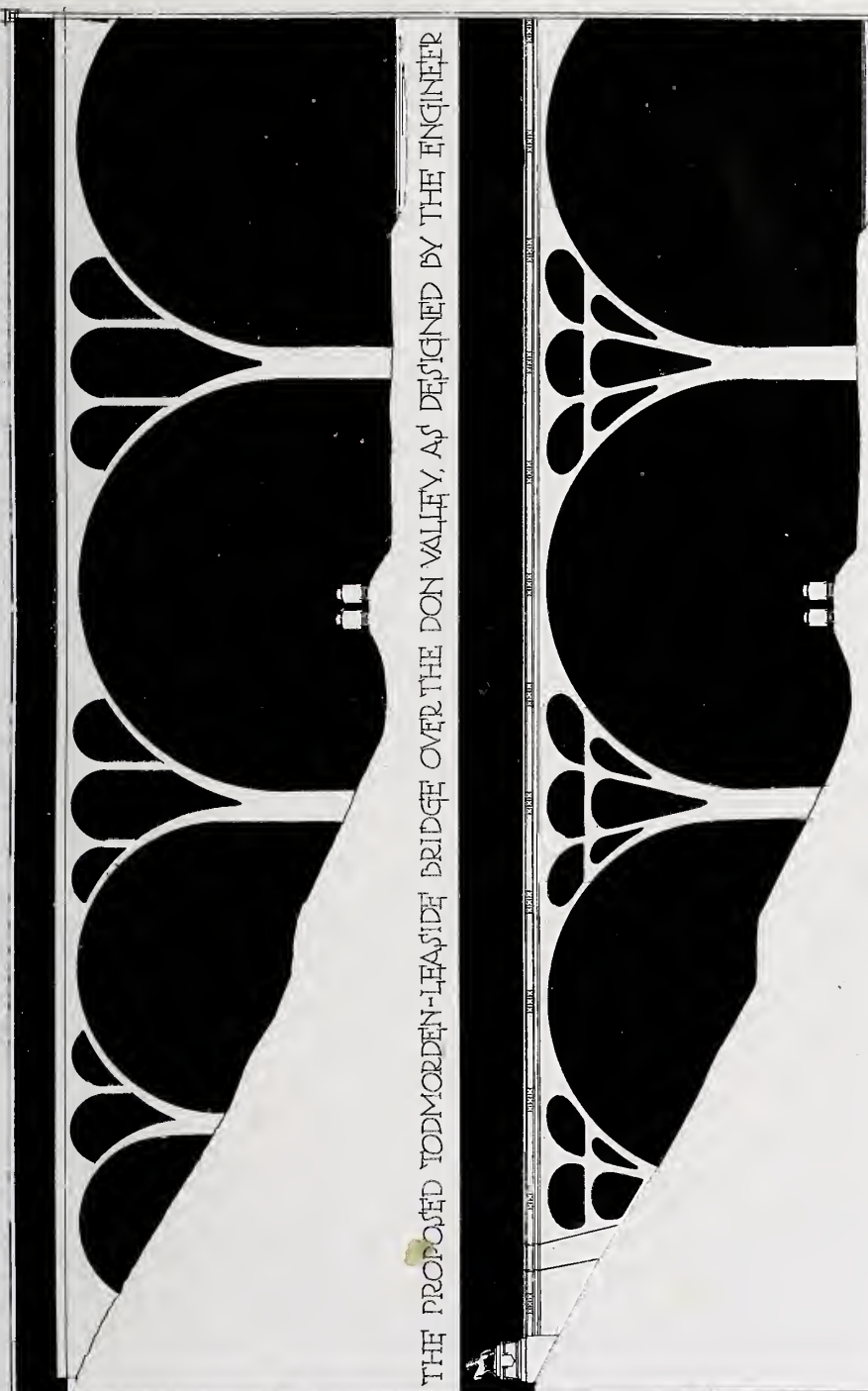


FIG. 7.



THE PROPOSED TODMORDEN-LEASIDE BRIDGE OVER THE DON VALLEY, AS DESIGNED BY THE ENGINEER

THE SAME BRIDGE RE-DESIGNED BY THE ARCHITECT IN SUCH A WAY AS TO CLEARLY INDICATE THAT IT IS A POURED CONCRETE AND NOT A BUILT-UP MASONRY STRUCTURE. THE INCLINED STRUTS AND ELLIPTICAL ARCHES ARE EASILY MADE IN CONCRETE, BUT WOULD BE UNNATURAL, DIFFICULT AND EXPENSIVE IN STONE

FIG. 8.

to him in this connection, not only aesthetically false, but structurally feeble?

He concluded that it was because, without the engineer himself realizing it, the adherence to a form derived from stone masonry construction had interfered with the direct and logical solution of the problem in the given material: reënforced concrete. Even to the most ignorant layman it should be plain that the weight of the roadway must be transferred to the ground through the piers from which spring the great arches, and it should be equally plain that this transfer ought to be effected as *directly* as possible. But in the engineer's diagram the line which defines the discharge of this weight takes a crooked course—vertically to the arch ring, angularly, following the arch ring, then vertically again to the ground. Now what would be the "harm," the architect asked himself, in straightening this line by substituting inclined struts for the vertical piers? In a stone masonry bridge such a substitution would be unthinkable because a "leaning" pier, built up of separate units horizontally, each overhanging

the one below, would be the acme of bad construction, but in a poured monolith, stiffened with steel rods, any departure from the perpendicular presents no difficulties.

Sure of the soundness of his reasoning, he dealt with the engineer's design, with the result shown in the lower part of Figure 8. The engineer fairly gasped when he saw this drawing—it was so contrary to precedent. He ended by liking it. "Yes, it's better, stronger, handsomer," and added a little ruefully, "but why has it never been done before?"

Here was another illustration of the virtue which dwells in escaping from the dead hand of the past: "Like you I will not build," exclaimed Michelangelo, turning his back on Brunelleschi's dome as he rode toward Rome to build St. Peter's at the command of the Pope. We of today must take, with regard to all outworn architectural styles, the selfsame oath. From known new structural beginnings let us proceed to unknown new aesthetic ends.

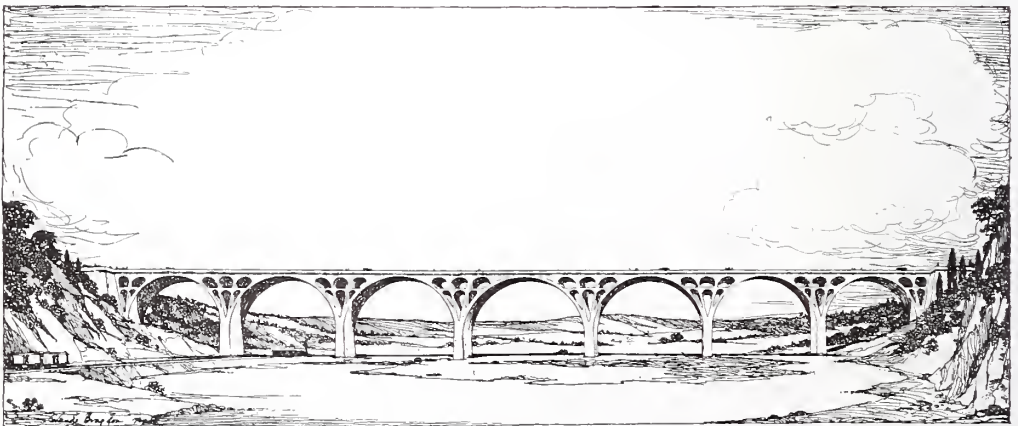
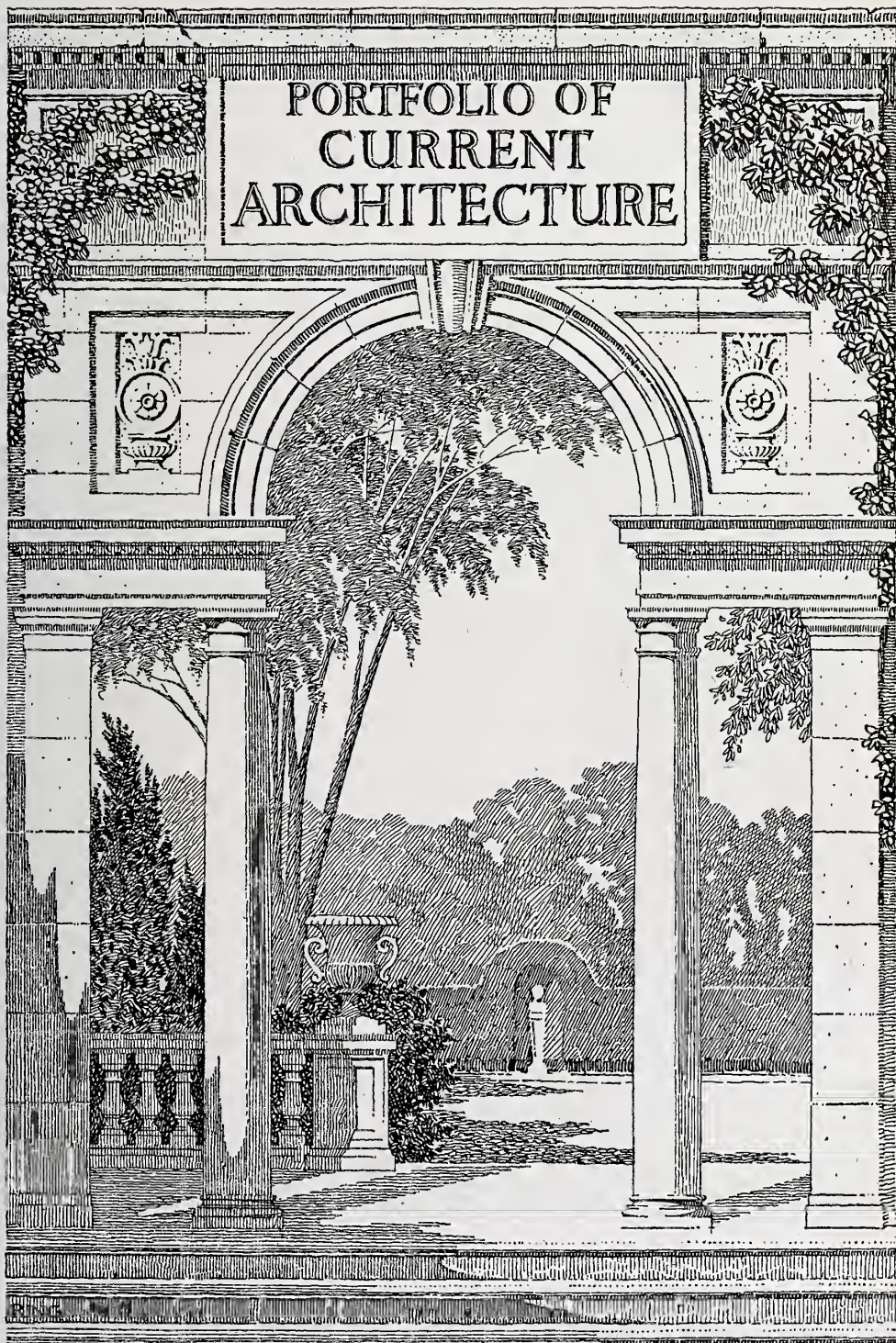


FIG. 9.





The Architectural Record.

January, 1923.

WAR MEMORIAL, NEW ROCHELLE, NEW YORK.
LOUIS R. METCALFE, ARCHITECT.
EDMUND T. QUINN, SCULPTOR.



The Architectural Record.

January, 1923.

AUDITORIUM OF COLLEGE OF DIVINE SCIENCE, DENVER, COLORADO.
J. B. BENEDICT, ARCHITECT.



The Architectural Record.

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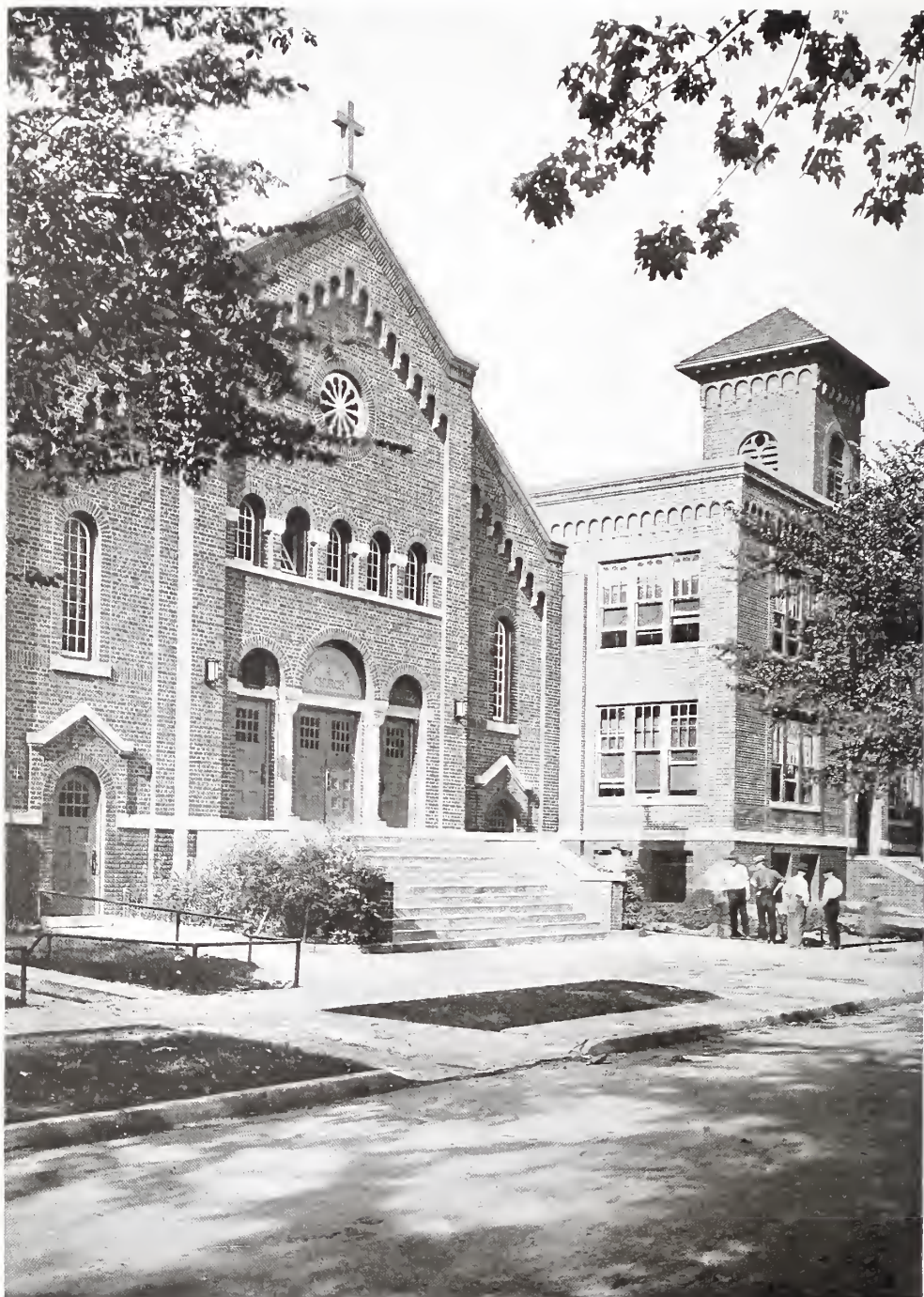
January, 1923.



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ST. BENEDICT CHURCH AND SCHOOL, DETROIT, MICHIGAN.
DONALDSON AND MEIR, ARCHITECTS.

January, 1923.



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January, 1923-

RESIDENCE OF SEAVEY BATTELLE, ESQ., RYE, NEW YORK.
ELECTUS D. LITCHFIELD, ARCHITECT.



The Architectural Record.

RESIDENCE OF SEAVEY BATTELLE, ESQ., RYE, NEW YORK.
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January, 1923.



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THE TRINIDAD COUNTRY CLUB, TRINIDAD, COLORADO.
I. H. RAPP, W. M. RAPP AND A. C. HENDRICKSON, ARCHITECTS.



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TOWN HALL, LITTLETON, COLORADO.
J. B. BENEDICT, ARCHITECT.

THE STATE ARCHITECT *and* HIS WORKS

1-*The State Armories*



By Prof. A. D. F. Hamlin

THE office of State Architect for the State of New York was first created by the Legislature in 1909 as a part of the "Act Relating to Public Buildings" of that year. This act fixed no duration for the tenure of the office, and the official designated was commissioned "to hold office during the pleasure of the Governor." The first appointee was Mr. Franklin B. Ware, of New York City. He held the office for three years, discharging its duties with integrity amid increasing difficulties, due to the pressure and interference of the politicians and the loose way in which the act was drawn. Upon his retirement, in 1912, Mr. H. W. Hoefer was appointed by Governor Sulzer to succeed him, but the scandals attending his administration resulted in his resignation in February, 1913, after which the office was left vacant for three months. In May of that year Governor Sulzer appointed Mr. Lewis F. Pilcher, of the firm of Pilcher and Tachau, of New York City, to the vacant office, which he has continued to hold ever since.

When Mr. Pilcher entered upon his duties the State Architect's office was in a condition of complete demoralization. The scandals which had marked Mr. Hoefer's brief term, as well as the political interference which had compelled Mr. Ware's retirement, had meanwhile attracted the attention not only of the architects throughout the state, but of the general public also. In view of this deplorable situation the New York State Association of the American Institute of Architects appointed a committee, consisting of Messrs. D. E. Waid of New York City, H. Osgood of Buffalo, and A. L. Brockway of Syracuse, to conduct an exhaustive investigation of the office,

the method of selection of its incumbents and of its draftsmen, and the conduct of its operations. As might have been expected, this excellent committee found no easy task confronting them. Every kind of obstacle was placed in the path of the investigation. The political manipulators and grafters had no intention of losing control of what they regarded as a rich barrel of patronage, influence and boodle. In the long struggle that ensued, first to get at the facts and then to evolve a business-like system out of the chaos, Mr. Brockway proved himself a valiant and fearless leader. He could unfold a most interesting tale of the "influences" at Albany with which he, ably supported by his colleagues on the Committee, had to do battle.

Meanwhile the Governor's new appointee had entered the field as a powerful ally of the Committee. In dealing with the demoralization he found in his office he uncovered many difficulties of detail and many abuses. He was fighting the very evils the Committee was investigating, and here, he declares, Mr. Brockway's courage and persistence were of the greatest value in the struggle to defeat the forces of political corruption. As a result of this co-operation, the Committee reached conclusions which they embodied in a report calling for a series of drastic reforms; and their recommendations, reviewed by a larger committee having among its members representatives of the State Government, of the State Association and of the New York Society of Architects, and endorsed alike by the profession and by public opinion, were embodied in a new act amending the Public Buildings Act of 1909. This new act was passed by the Legislature of 1914 and became a law

(Chapter III, Laws of 1914) by Governor Glynn's signature on April 3d of that year.

This new law has never since been amended, for the very good reason that in Mr. Pilcher's competent hands its operation has given entire satisfaction to the profession and to the public—to everyone, in short, except the grafters, who in the face of this overwhelming public approval have not ventured to lay their devastating hands on it. But even a good law may be wrecked by a weak-kneed and incompetent administrator, and it is to the everlasting credit of the present incumbent, that, being both a valiant fighter and a singularly competent administrator, as well as an excellent architect he has developed all the excellent features of this model law to the fullest extent. Its great strength lies in the fact that in the first place it specifies a definite term of office—three years; in the second place it specifies clearly the wide range of the State Architect's duties; in the third place it subordinates him to no other department or officer in the State except the Governor responsible for his appointment; and in the fourth place it gives him absolute freedom in the appointment of his assistants and subordinates. It places on his shoulders a tremendous responsibility and a huge volume of work, that demand a strong man to carry them. Fortunately Mr. Pilcher is a strong man with broad shoulders.

Without going into tedious details, the functions of the Department of Architecture (as the office of the State Architect is technically designated) may be stated briefly to be the preparation of plans, specifications and contracts for all buildings erected, altered or enlarged at State expense, and the superintendence of their erection. An exception is made for buildings assigned by special laws to other architects and for alterations or additions to State Institutions when made by the institutions themselves or executed by inmate labor; but the Department exercises general supervision over such work. The State Architect is given the largest powers and widest discretion in the conduct of the office and the ap-

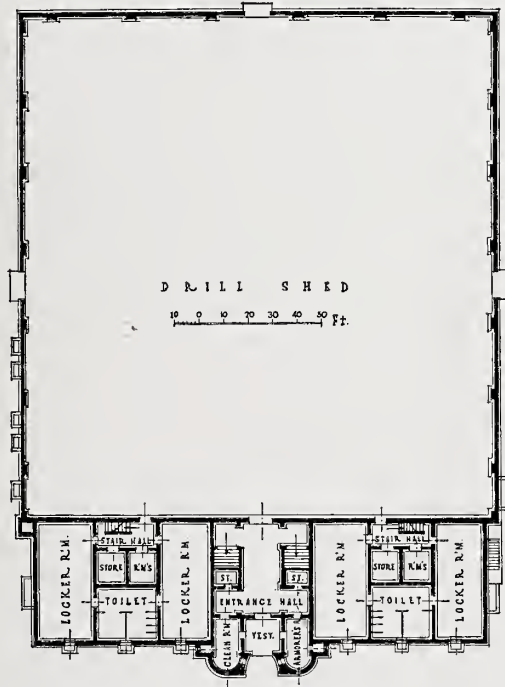
pointment of his assistants and subordinates, and is by the law fully protected against interference by officials of other departments or by municipal or other corporate bodies. In short, the Department is taken out of politics and organized upon a rational business basis.

The work thus assigned to the State Architect's office is of the most varied character. All the State hospitals for the insane, the tubercular, the feeble-minded; all the State prisons, reformatories, workhouses and farms; the vast institution of the State Agricultural College at Ithaca with its related and affiliated laboratories scattered through the State, all the State armories, State Normal schools and special schools, come under the care of the Department of Architecture, either in their original design and construction, or in the matter of alterations, enlargement or repair. The Court of Appeals building and the State office-building at Albany, were designed by the present incumbent, who also brought to successful completion the restoration of the State Capitol after the disastrous fire of 1913.

The State Architect furthermore, by virtue of his general care and supervision of the buildings of the State, is called upon to design power-plants and water-supply systems, laundries, dairies and barns, heating-plants and systems of drainage and sewage-disposal for State farms, asylums, prisons and hospitals. An "Executive State Architect," an "Assistant State Architect" and a Chief Engineer are therefore provided by the law to be on the permanent staff of the Department. They are appointed by the State Architect, who also has authority to appoint in addition such architectural and engineering experts, assistants, stenographers and clerks as may be required from time to time, and to fix their salaries. This is a wise provision designed to meet the varying conditions of over-load and under-load of work in the office without the delays caused by constant applications for authority and emergency appropriations, and above all, without subjecting the office to the constant interference of politicians active in State and county affairs.

The experience acquired in the designing of State institutions under these unusually favorable conditions has also led to frequent calls upon the office from Federal bureaus and from the governments of other States and city and county authorities in New York for advice and counsel in similar problems of their own,

the extraordinary discretionary powers and independent authority vested in the State Architect might lead to disastrous results. Underlying the law of 1914 is the fundamental idea of appointment by the Governor on the sole basis of merit. By granting to the State Architect such a large measure of independent authority

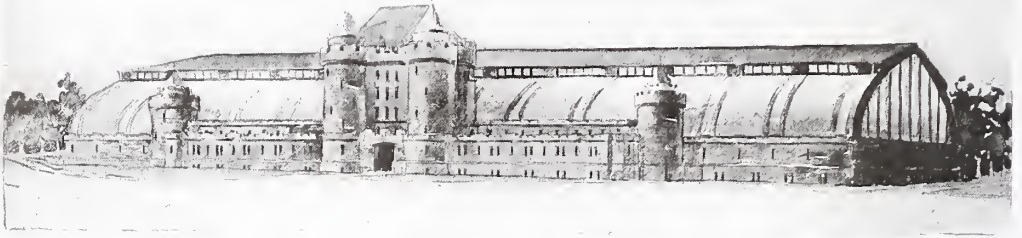


PLAN OF STATE ARMORY, TROY, N. Y.
Lewis F. Pilcher, State Architect.

and—since the law wisely omits any limitations upon the outside activities of the State Architect so long as he satisfactorily discharges the heavy duties of his office—for designs and specifications for prisons, hospitals and armories. In this way the New York Department of Architecture is enabled to serve a much greater public field than that of the State of New York alone, great as that is.

It is quite evident, as has been already remarked, that under incompetent hands

the law imposes on the Governor the final responsibility for the character of the work that comes from the Department of Architecture under his appointee. When the present law went into effect in 1914 Governor Glynn had the wisdom to ignore political considerations and to reappoint Mr. Pilcher, whose excellent work under adverse conditions previous to the passing of the new law had marked him as a man of unusual ability, combining technical competence with a



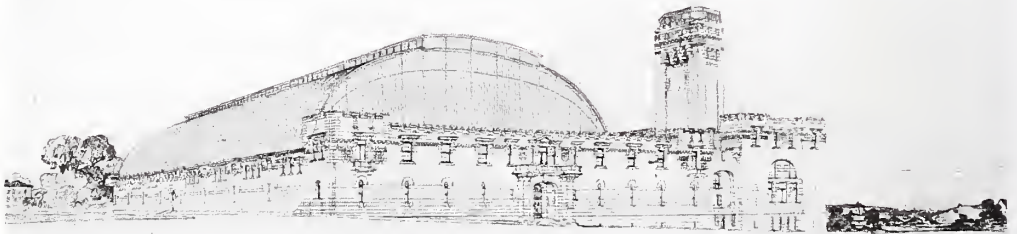
DRAWING OF ARMORY OF EIGHTH COAST ARTILLERY, NEW YORK CITY.
Pilcher & Tachau, Architects.

high degree of administrative skill and a remarkable energy and force of character.

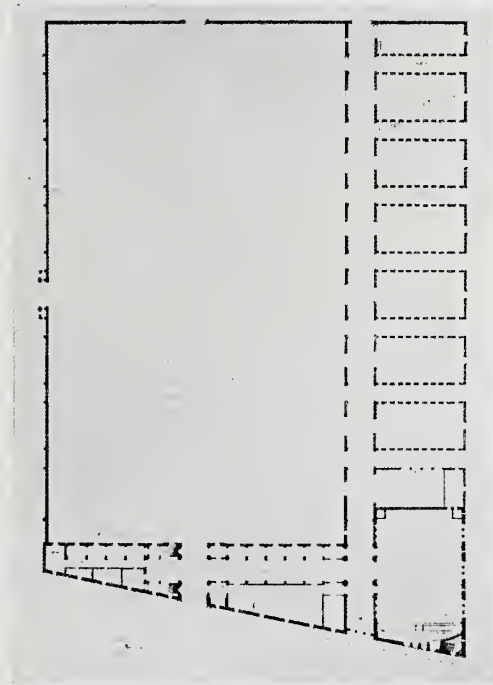
II.

Dr. Pilcher, who after attending Wesleyan University 1889-1890 graduated from the School of Architecture of Columbia in 1895, acquired his practical experience in the profession first in the office of the late Mercein Thomas, Brooklyn, and then in independent practice. In this he early associated with himself his classmate, W. G. Tachau, and they, until 1921, maintained a joint practice in New York entirely distinct from that of the State Architect's office.

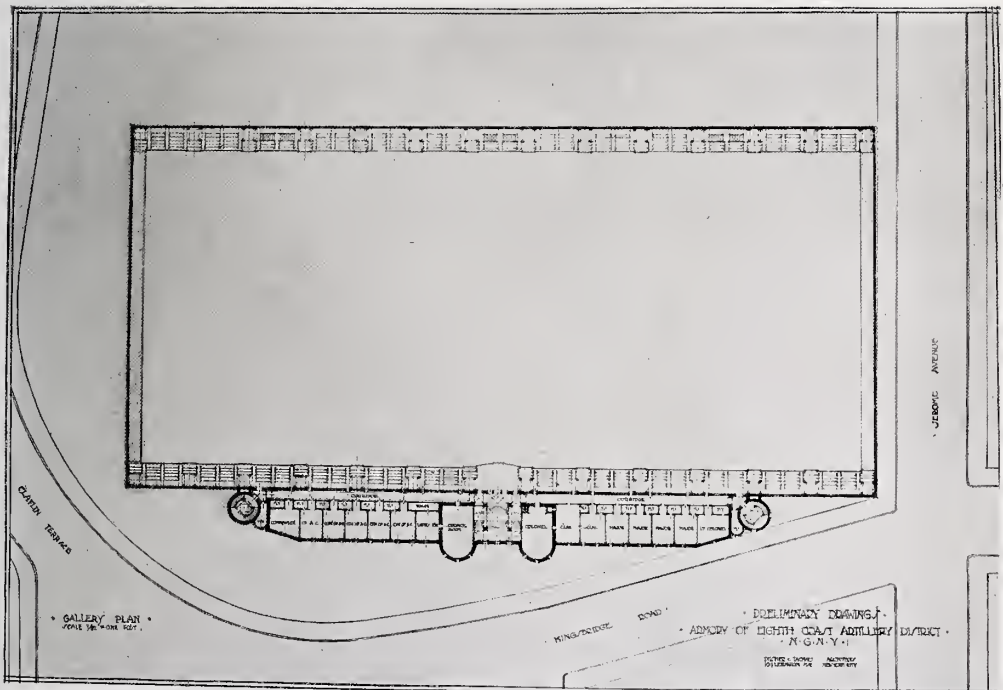
During the eleven years previous to Dr. Pilcher's appointment to his present official post this practice, beginning with the winning in 1901 of the competition for the Troop C Armory in Brooklyn, expanded to considerable dimensions, giving him a breadth of experience of great value for his later career. Meanwhile he had been called to the professorship of Fine Arts at Vassar College, where his active mind and love of scholarship found a new field in which he attained remarkable success, raising the Department of Fine Arts there to a position of great dignity and importance. In 1910 he received from the University of Colo-



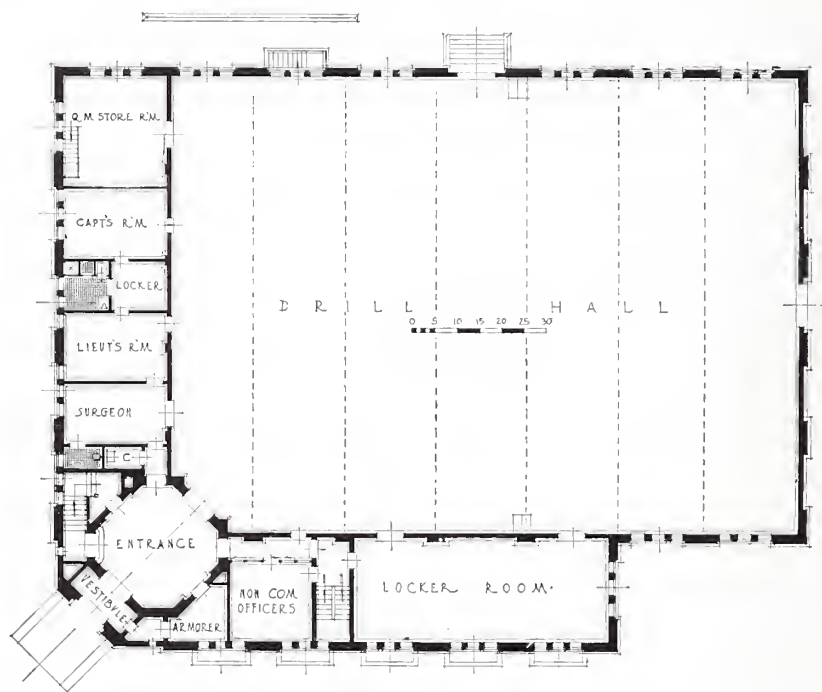
DRAWING OF ARMORY FOR TROOP C, BROOKLYN, N. Y.
Pilcher & Tachau, Architects.



PLAN OF ARMORY—TROOP C, BROOKLYN, N. Y.
Pilcher & Tachau, Architects.



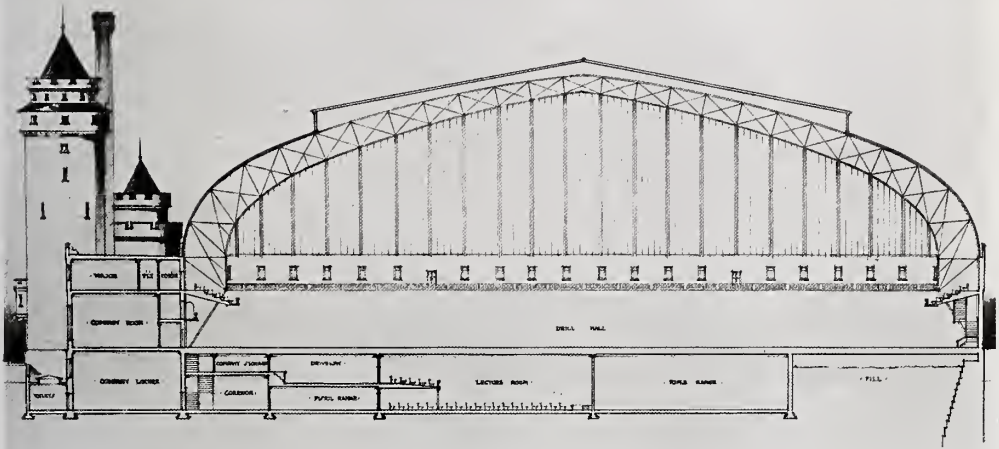
PLAN OF DRILL HALL—EIGHTH COAST ARTILLERY, NEW YORK CITY.
Pilcher & Tachau, Architects.



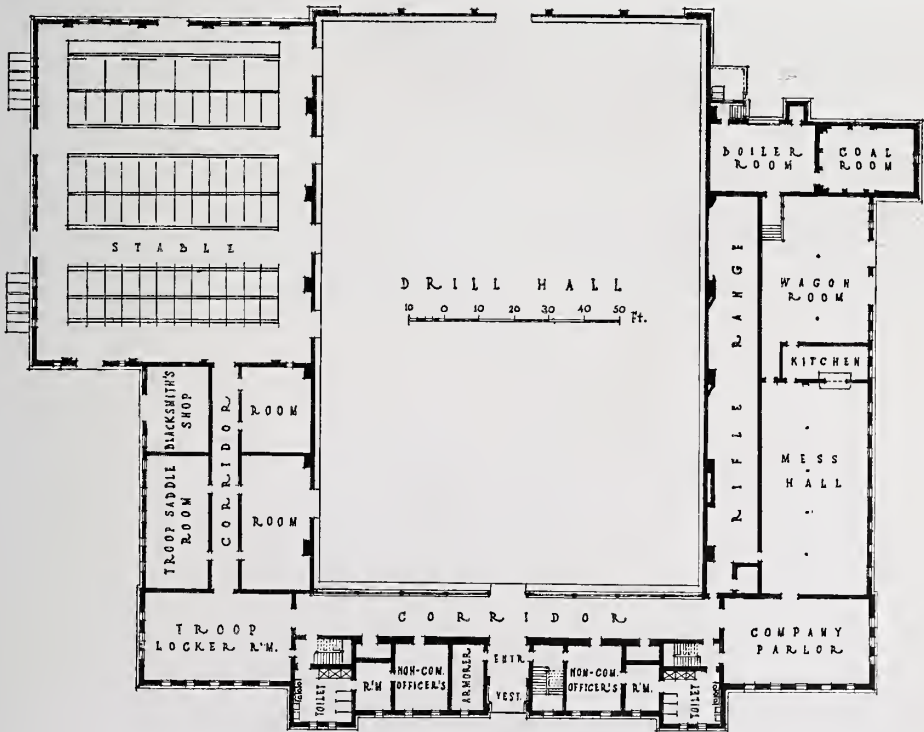
PLAN OF ARMORY OF COMPANY G, YONKERS, N. Y.
Lewis F. Pilcher, Architect.



PLAN OF ARMORY OF TROOP B, ALBANY, N. Y.
Lewis F. Pilcher, Architect.



TRANSVERSE SECTION



PLAN OF ARMORY OF TROOP F BEFORE ENLARGEMENT OF STABLES, ROCHESTER, N. Y.
Lewis F. Pilcher, Architect.

rado the degree of LL.D. Meanwhile he continued his active practice of his profession. He resigned his professorship in 1911 because of the increasing volume of his practice, and in 1913, as already noted, was appointed State Architect, under the Public Buildings Act of 1909.

From this sketch of Dr. Pilcher's personal history, it will be seen that Governor Sulzer made no mistake in his selection. In accepting the responsibilities of

The firm of Pilcher and Tachau made its début with the winning of the Troop "C" Armory competition in 1901 during the mayoralty of the late Seth Low. A long series of armories since then have been designed either by his firm or by Dr. Pilcher as State Architect. Some of these I propose to discuss and illustrate in the space that still remains to me, reserving for a future article an account of the work done for the State College of



ARMORY OF TROOP B, ALBANY, N. Y.
Lewis F. Pilcher, State Architect.

the State position the new incumbent was well aware of the Statewide forces that would war against any efficient, businesslike, non-political administration of the office. But the man who in student days, crossing the Atlantic on a cattle-ship as a cattle tender, knocked down the bruiser and bully of the gang and put an end to his brutal tyranny, was not afraid of a fight if need be, and managed to clean up the office and maintain his own independence by quiet and firm insistence on right methods, which the Act of 1914 made permanent and obligatory.

Agriculture at Ithaca and elsewhere. I shall hope, furthermore, to present in that article a condensed summary of the work done in the Department of Architecture during the nine years of Dr. Pilcher's service, in order to help the readers of *THE ARCHITECTURAL RECORD* and the profession generally to appreciate the magnitude, variety and importance of the State Architect's duties and responsibilities.

The State institutions whose design is committed to the Department of Architecture may be divided into five groups

or classes: a—correctional; b—custodial; c—sanitary; d—military; and e—educational. Taking examples of each class they comprise (a) Prisons and Reformatories; (b) State Hospitals for the Insane, Institutions for the Feeble-minded and Deaf Mutes; (c) Hospitals, tuberculosis villages, and systems of drainage, heating, water-supply, ventilation, etc.; (d) Armories, and (e) State Schools of various kinds. The program of work thus laid before the State Architect is sufficiently varied to satisfy the most ambitious taste, including, as it does, great centralized buildings, group plans, housing schemes and technical problems of a sort to tax the ability of a man of unusual resources, such as Mr. Pilcher has proved himself to be. In the course of his work on the State's prisons, prison-farms and reformatories he has been led to a thorough study of modern penal systems, and has become a warm advocate of advanced and humane methods of prison planning and construction. In recognition of his achievements in this field he was, in 1920, awarded one of the five Gold Medals of the National Committee on Prisons and Prison Labor. The State could render a great public service by publishing a detailed account of its recently built penal institutions, with plans and illustrations.

III

The earliest special field in which Dr. Pilcher distinguished himself and to which more than any other he probably owed his first appointment, was the military; and his first success in it was, as has already been noted, the Troop (now Squadron) "C" Armory in Brooklyn in 1901. This was the result of a competition in which the simplicity and convenience of the Pilcher and Tachau plan, and the admirable lighting and ventilation of the stables marked it as incontestably the best of the five plans submitted. The arrangement of the stables in pavilions, each open to the light and air on three sides and on the fourth communicating directly with the drill hall, was a wholly novel conception which won instant approval, alike from the judges, the

Armory Board and the officers of the Squadron. Like qualities of simplicity, directness, convenience and adaptation to special requirements displayed in this design were also conspicuous in the huge Armory designed by Pilcher and Tachau a few years later for what is now the Eighth Coast Artillery in Manhattan, on the site bounded on three sides by Kingsbridge Road, Jerome Avenue and Claflin Terrace. Mr. Pilcher considers this as "perhaps the most interesting of all the armory designs in the country. The necessities of mobilization, the importance of the Division Train, etc., were successfully met in the development of the scheme." Its logical and reasoned-out planning and the practical expressiveness of its exterior design are apparent in the illustrations.

With the Squadron "C" Armory in Brooklyn may be compared the later cavalry armories at Albany ("Troop B"), Buffalo ("Troop I"), and Rochester ("Troop H"). In these, the pavilion system of stabling of the earlier Brooklyn armory was not adopted, because of limitations both of site and cost. In all three the stables are concentrated under one roof, the Rochester stable as finally enlarged being the largest, with open stalls for 100 horses and ten box stalls.

For the Infantry Armories (Yonkers, Troy, Olean, Ithaca) the plan is simplified by the absence of the problem of stabling. The problem thus becomes that of combining a drill-hall with a "head-house" containing the company rooms, officers' rooms, lockers, toilets, etc., a rifle-range and sometimes a gymnasium. The simplest of the plans shown is that of the Troy Armory, with a head-house across the front end of a drill shed measuring 206 x 191 feet. In the Yonkers Armory the dependencies occupy one end and two-thirds of one side of a much smaller drill-hall measuring 110 x 100 feet, the entrance being at the corner. Here it was impossible to mass these dependencies in a head-house only 100 feet long without doubling the rooms on either side of a corridor, permitting direct light and outside air only to those on the front. The solution adopted not only



GENERAL VIEW—TROOP B ARMORY, ALBANY, N. Y.
Lewis F. Pilcher, State Architect.

produced a more picturesque exterior, but also provided direct access from the company rooms and offices to the drill-hall. In the Troy Armory the rooms are in two stories and an attic or mezzanine, the locker-rooms and baths being directly accessible from the drill-hall with company and officers' quarters upstairs.

The huge Cornell Armory is in a class by itself, as it is really a vast drill-hall with few accessories and no company room. Its purpose is to provide for military instruction for the Cornell students,*

* Cornell University under the terms of its charter as a land-grant institution is obligated to provide military instruction and drill for its undergraduate students, under the supervision of a U. S. Army officer.

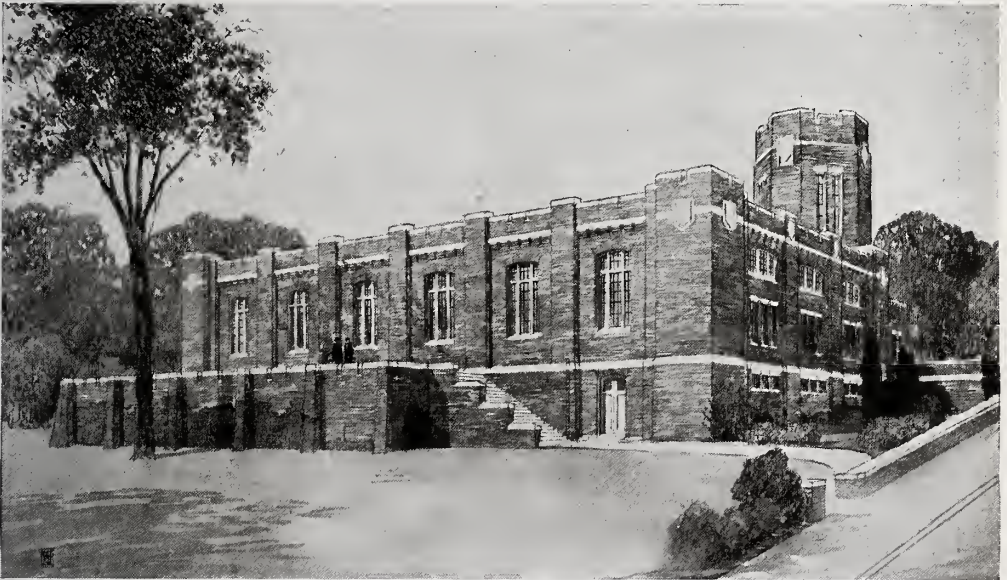
with floor space adequate for 1,000 men in the drill-shed, which accordingly measures 362 x 228 feet—truly noble dimensions. The only other armory comparable with this is that of the Eighth Coast Artillery at New York, the drill shed of which covers an unobstructed area of 600 x 300 feet. The experience gained in this earlier design (1912) served the State Architect well in the later one. By exact measurements of the spaces occupied in various formations by the individual soldier, by the squad and by the company in rank, in column and in extended order, he arrived at certain unit areas which made the ground space required for a military or-



TROOP I ARMORY, BUFFALO, N. Y.
Lewis F. Pilcher, State Architect.

ganization of any given size a matter of exact calculation, not of guesswork. Thus, for instance, a company of eleven squads in line occupies 301 lin. feet, or 326 feet between right and left guides of the battalion; in column it measures a total depth of $320\frac{2}{3}$ feet; in extended order, not including intervals between companies, the total linear extension is 814 feet. The accumulation and filing of standard data of this sort, not merely for armories but for all sorts of public buildings, make it possible for the Department of Archi-

problem in each is the combination of a number of rooms and offices and accessories of various sizes with a drill-hall, and it is necessarily the drill-hall that dominates the design, alike in importance, area and height. The relation to it of the other parts depends on their number and character and the shape and size and the topography of the site. In the Eighth Coast Artillery Armory, for example, the sharp fall of the ground made it possible to provide for all the larger accessories—the 400 foot rifle range, a bowling



ARCHITECT'S PERSPECTIVE OF ARMORY, YONKERS, N. Y.
Lewis F. Pilcher, State Architect.

itecture to serve not only the State of New York, but also the authorities of other States and the entire architectural profession as well. Thus (to digress a moment from our immediate topic) the plans and data worked out for various New York State custodial institutions at Sonyea, Letchworth Village, Newark and Rome, and the typical institutional housing-plan for the Epileptic Institute at Sonyea, have been used by the State authorities of Alabama, Georgia, Louisiana, Pennsylvania, South Carolina and Texas.

But let us return to our armories. With all the variety in their requirements, the
thirty-seven

alley, a gymnasium, a lecture room, etc.—*under* the drill-hall, permitting a larger area for the drill-hall than would have been otherwise possible. On the other hand, the shape of the site at Rochester compelled the architect to surround the hall on three sides with its necessarily extensive accessories.

IV

The design of the drill-hall, then, becomes the determining factor of the whole structure, but there is little essentially new in this problem. The old type of terminal railway-station with its head-house and vast train-shed dates from the



Architect's Drawing.

ENTRANCE AND TOWERS—ARMORY AT TROY, N. Y.
Lewis F. Pilcher, State Architect.



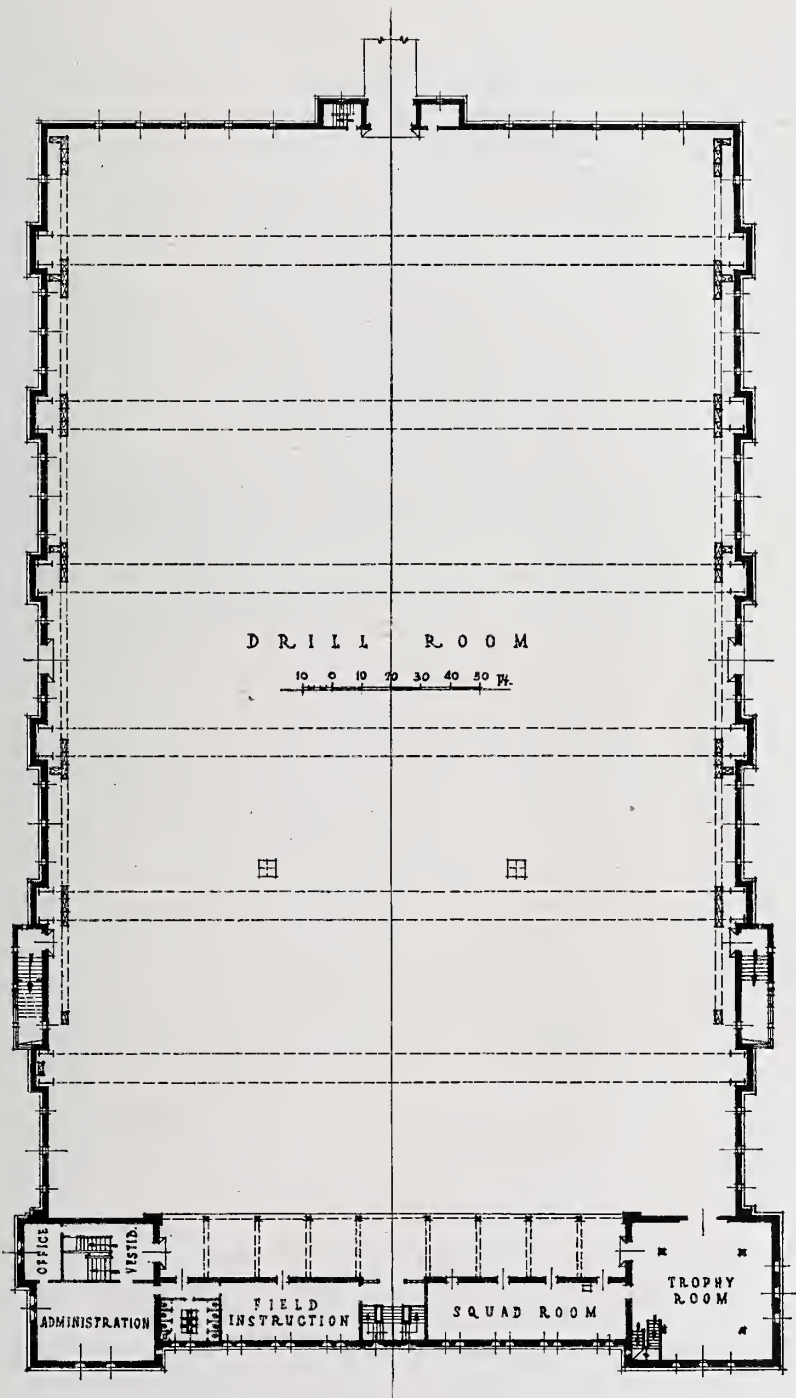
STATE DRILL HALL—CORNELL UNIVERSITY, ITHACA, N. Y.
Lewis F. Pilcher, State Architect.



DRAWING OF STATE DRILL HALL—CORNELL UNIVERSITY, ITHACA, N. Y.
Lewis F. Pilcher, State Architect.



STATE DRILL HALL—CORNELL UNIVERSITY, ITHACA, N. Y.
LEWIS F. PILCHER, STATE ARCHITECT.



PLAN OF DRILL ROOM—STATE DRILL HALL—CORNELL UNIVERSITY,
ITHACA, N. Y.
LEWIS F. PILCHER, STATE ARCHITECT.

sixties and was typical for thirty years. It embodies many of the elements of the Armory problem and furnished obvious precedents for drill-shed design. The train shed of the old Grand Central Depot at New York with its length of over 600 feet and its span of 200 will be remembered by our older architects as an unusually elegant sample of its type; it was completed in 1871 and its longitudinal dimension was exactly that of Pilcher's and Tachau's Eighth Coast Artillery Armory. The Pennsylvania Terminals at Jersey City and at Broad Street, Philadelphia, dating from the eighties, still survive as later examples of the same general type. A similar problem was solved in the great halls of several World's Fairs. The Machinery Hall of the Paris Exhibition of 1889, demolished about ten years ago, stood for over twenty years as the most impressive and elegant, and with one exception, the largest of all unencumbered spaces under one roof, surpassed in dimensions only by the central area of the Liberal Arts Building at Chicago in 1893, which measured 1,300 by 384 feet against the 1,200 by 367 feet of the Paris example.

The earliest of our armories to be roofed with iron and glass after the general fashion of the above examples was Mr. Hunt's Seventh Regiment Armory at New York, 1880. For its time it was a striking and original work, a straightforward and practical design with an exterior free from the more or less affected mediaevalism that marked not a few armories of slightly later date.

The problem of the metal-framed roof of broad span has been treated variously by our architects in train-sheds, exhibition buildings and large gymnasiums as well as armories, in most cases with greater regard for engineering than esthetic considerations. The results do not on the whole compare favorably in elegance of aspect with the best French and European examples. The French prefer smaller units and lighter sections than our American practice favors, consequently with narrower "bents" or truss spacings, than ours. Whether this results in a less economical construction and greater total

weight of metal than our heavier trusses and wider spacings, I do not know. Such is very possibly the fact. However, that may be, the French results are artistically beautiful, and there is a noticeable avoidance of the confusing multiplicity of tie-rods and braces that detracts so often from the dignity and beauty of so many American roofs.

Dr. Pilcher in his attack on this problem, has generally followed a middle course between the lightness and elegance of the French examples and the American heaviness of treatment. He has been an eclectic in his choice of roof systems, varying the type with each new problem. In general he has preferred some form of arched truss, either of the bow-string or sickle type carried by the side walls (or by columns incorporated in them) or the two- or three-hinged type springing from the floor level and tied under the floor. In his two largest armories—that of the Eighth Coast Artillery at New York and the Cornell Drill Hall at Ithaca—he has adopted the four-centered Tudor or Persian arch-form, after the example of the Paris *Salle des Machines*. On the other hand, at Albany, Buffalo and Brooklyn (Squadron "C") the trusses are of the sickle or crescent form carried by the walls or by columns. The Albany trusses are the heaviest and least pleasing of these. In the Eighth Coast Artillery and Cornell Armories where the span exceeds 200 feet, double trusses are used, spaced over 30 feet on centres in the first and over 40 in the second. The effect, though less elegant than the best French examples, is thoroughly satisfactory and distinctly more pleasing to the eye than the very low and heavy effect of the Albany roof.

V

Dr. Pilcher has been equally eclectic in his treatment of the exterior design of these various armories. The Albany and Buffalo Armories are severely simple and practical in exterior form and detail. Without any affectation of mediaevalism and without a single superfluous feature, they are both unmistakably military in aspect, and thoroughly expressive of their



END VIEW—STATE DRILL HALL, CORNELL UNIVERSITY, ITHACA, N. Y.
Lewis F. Pilcher, State Architect.

function. But why that incongruous round chimney leaning against the side wall at Albany, looking like a huge column bereft of base and capital and apparently unrelated to the building behind it? It strikes the writer as the one and only incongruous note in the whole series of admirable designs. In the Eighth Coast Artillery Armory and in the armories at Troy and Malone the introduction of round towers of the French fifteenth-century type to flank the very mediaeval entrance gates (or at the corners of the Malone addition) is evidently motivated rather by artistic than practical consideration. That it is artistically pleasing and emphasizes the expression of military character may be conceded, and to most minds this is ample warrant for the device. The hypercritical might object that it is an archaeological affectation, a bit of stage effect out of harmony with the wholly modern character of the building, and demonstrably unnecessary as a means of expression of function. Approval and disapproval are equally rational according to the critic's point of view. But the premise of their use once granted, one cannot deny that they are well handled and carefully detailed. The mediaeval

note, if present, is certainly not paraded.

On the whole, I think the prize of hearty and unqualified approval should go to the splendid drill-hall at Cornell University. In this noble building, constructed of the local limestone, the huge scale of the drill-shed is made evident by the contrast of scale in the openings and in the design of the head-house. The two unequal square towers terminating the main façade, while evidently inspired by English mediaeval examples like Rochester Castle, for instance, are thoroughly practical and modern designs, every detail of which has its *raison d'être*. The flanks express as clearly as any French Gothic cathedral the structural scheme of the drill-shed with its huge double trusses, and this is also clearly expressed by its exposed ends with their vast areas of glass framed in the outline of the inner and lower member of the end trusses.

The interior fully carries out this expression of scale; its vastness is impressive when empty; it is still more impressive when one sees considerable bodies of men upon its two acres of floor space. It is a notably modern achievement in American architecture.



ARCADE IN CORTILE—PALAZZO
DI VENEZIA, ROME.

Restorations in — The Palazzo di Venezia — in Rome

By Harold Donaldson Eberlein

THE Palazzo di Venezia is one of those great architectural monuments of Rome that new visitors, and also those long familiar with the city, too often take as a matter of course—as they do likewise so many of the others—without giving much heed to its individual significance. They are bewildered by the wealth of historic antiquity on every side, and frequently it is the general *milieu* that impresses them rather than the qualities of any one particular structure.

In point of fact, the Palazzo di Venezia is one of modern civilization's epochal buildings, and on several distinct scores it challenges the attention of every person at all concerned with architecture, with the other diverse aspects of art, or with history. (1) It is the first significant Renaissance building* that arose in Rome and its erection presents a definite, tangible point of architectural demarcation between Rome of the Middle Ages and the new Rome of the budding Renaissance. (2) It affords a valuable ground for comparison between the character of early Renaissance tendencies manifested in Rome and contemporary developments in Florence. (3) It is the central figure about which cluster fascinating historic associations, and the story of its ownership forms a noteworthy incident in the history of the Great War. (4) It sup-

plies, at the present time, an illuminating example of the manner in which extensive and deeply significant restorations are being carried out. (5) Finally, it is a storehouse replete with items of pertinent suggestion to architects, details suitable for reproduction or for adaptation in a hundred different ways.

It is with the two last mentioned aspects that we are here chiefly concerned. In order, however, to understand the situation as we find it today, it is necessary to take a brief survey of the history of the building, tracing the sundry vicissitudes through which it has passed as well as noting the appearance it has presented in successive epochs and giving its architects such credit as we may for the various parts they have performed in making it what it is.

Some time between 1447 and 1455 Pietro Barbo, Cardinal of Saint Mark, set about laying the foundations of this princely dwelling. The exact date of its inception we do not know. But we do know that in 1455 the Cardinal di San Marco caused a medal to be struck representing a palace, flanked by two towers, and bearing this inscription: PETRUS. BARBUS. VENETUS. CARDINALIS. SANCTI. MARCI. ANNO. CHRISTI. MCCCCLV. HAS. AEDES. CONDIDIT. As this medal was intended to be placed in the foundation of the edifice or within its walls—exactly such medals, deposited in earthenware

*The extensive enlargements undertaken at the Vatican by Nicholas V, and brought well on their way to completion at the time of his death in 1455, antedated by a few years the erection of the Palazzo di San Marco; but the Vatican has been so changed by alterations and additions that its present aspect is very different from its appearance at the middle of the fifteenth century. As a visible witness, therefore, to the architectural development of that particular epoch its value is secondary to that of the Palazzo di San Marco.

The writer here desires to make grateful acknowledgment of the many courtesies and kindness extended by his friends, the Marchese di Rosales and Doctor Arduino Colasanti, of the Department of Belle Arti, through whom it became possible to make measurements and photographs of the work in course of restoration. This work has now advanced far towards completion.



SOUTH AND EAST FRONTS—PALAZZO DI VENEZIA, ROME.

caskets or pots, have frequently been found during the course of restoration and repairs to the fabric—it is quite likely that the work of actual construction was not begun till 1455.

Soon after (about 1458), the ancient basilica of Saint Mark, round about which the palace was being built, was restored largely at the Cardinal's charges. About 1466 the enclosed garden, or what is known as the "palazzetto," was added. When Cardinal Barbo was elevated to the Papal throne in 1464 as Pope Paul II, the Palazzo di San Marco, as it was then and for long afterwards called, was sufficiently advanced for him to make his residence there from time to time when he so pleased. Indeed, before his elevation to the pontificate, he seems to have been living there, for upon the news of his election, the Roman rabble, according to the rude custom of the age by which they considered it their prerogative to plunder the dwelling of the newly-made Pontiff,

were about to storm the palace, which was known to be full of treasures and works of art, when they were bought off by a largesse of 1,300 ducats.

In 1471, when Paul II died, the Palazzo di San Marco was still unfinished, and, in fact, it never has been finished according to the plan intended. Nevertheless, Paul II was accustomed to live there during a great part of the year, and his successors used it as a papal abode upon various occasions until Pope Pius IV, in 1564, gave it to the Republic of Venice as a place of residence for the Venetian Embassy to the Holy See. It then remained in the possession of Venice until the fall of the Republic, when Austria seized it as a chattel appertaining to the now subject Venetian State.

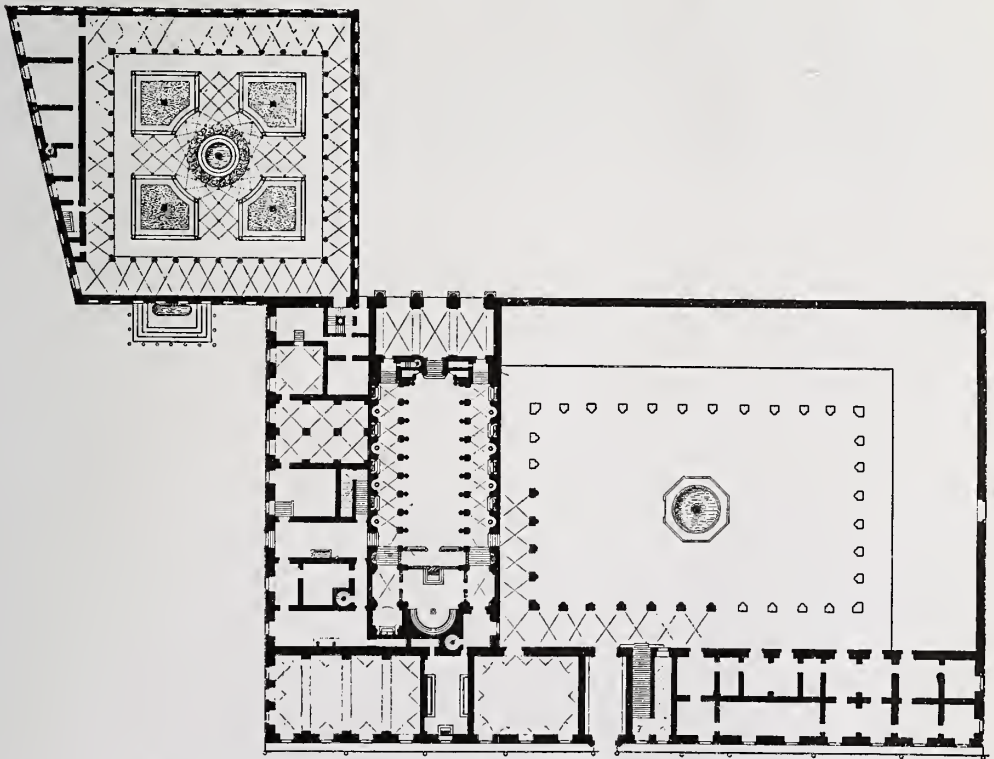
When Austria, in 1866, was compelled to relinquish the Veneto, the Palazzo di Venezia in Rome ought to have been restored at the same time. This Austria did not do, but wrongfully retained it

and there established her Embassy. In consequence, a suit to recover possession of the palace was pending for years in the Italian courts until the time that Italy joined the Allies. For obvious reasons the case was never allowed to come to trial. When Italy declared war, however, the proceedings were expedited, judgment was passed, and the building returned to its rightful Italian ownership. Hence the possibility of undertaking the restorations now in progress. By a singularly appropriate coincidence, many of the chiefest art treasures, removed from Venice for safekeeping during the war, were stored in the base of the palace tower, while the bronze horses of Saint Mark's also found shelter in the courtyard.

Several architects were employed from time to time in building the Palazzo di Venezia, but exactly what part each of them played in moulding the building to its present form it is impossible to say.

New bits of documentary evidence in this particular are continually coming to light—oftentimes in the most unexpected quarters—and a more thorough delving into various collections of archives than has as yet taken place, with a careful collation of all the evidence thence derived, may enable us at some future day to assign with greater certainty the authorship of the different portions of the structure. As it is, we already know what master-craftsmen performed certain specific labours and how much they were paid for their work, as well as the very day and year they received their recompense.

Be the disclosures of further documentary evidence what they may, there is one important factor in the genesis of the palace, too often overlooked or belittled, that we ought not to leave out of account—the personal influence, tastes and preferences of Pope Paul himself. He was a man of refined and educated judgment; a most intelligent connoisseur



GROUND FLOOR PLANS OF PALAZZO AND PALAZZETTO (FROM LETAROUILLY)—
PALAZZO DI VENEZIA, ROME.



CORTILE OF PALAZZETTO—PALAZZETTO DI VENEZIA,
ROME.

and zealous collector of works of art of all kinds, from his youth up to the day of his death; imbued with what was best in the humanistic trend of the times, as there is abundant evidence to prove beyond all peradventure, despite the venomous slanders of detractors both in his own day and since; unspoiled by the sundry affectations, wayward intellectual extravagances and absurdities that marred the record of not a few of his Renaissance contemporaries; and, finally, what is of special interest to us at this point, keenly appreciative and understandingly critical of architecture, gifted with constructive insight, able to conceive a broad and worthy scheme in its chief parts, and capable of imparting definite and coherent wishes to those who laboured for him.

We shall not be far wrong in ascribing the main idea to Paul, the elaboration and performance to his architects. If tradition be correct, somewhat of the general scheme and one matter of detail—the *fenêtres croisées* of the first floor—are ultimately traceable to a drawing the Pope possessed of a palace at Avignon. The palace prototype, or perhaps it might be better to call it the germ of inspiration, has long since disappeared, although the drawing, so the writer is informed, is still extant.

After making this reservation for Pope Paul's own part—a part more or less elastic in its interpretation, possibly, but by no means negligible when we bear in mind the Pontiff's disposition and tastes—it remains to speak of the attribution to certain architects and the light thrown upon the subject by the archives.

Letarouilly, taking his cue from Vasari, credits Giuliano da Maiano with the design of the palace. Recognizing,

however, that "there is so marked a difference" between the styles of architecture exhibited respectively by the palazzo and the palazzetto, "and even in their general appearance," that one is immediately struck by it, he concludes that they were "evidently not done as parts of one plan" and, on the strength of analogy with other work attributed to Baccio Pontelli, ascribes the design of the contiguous little palace or palazzetto to that architect.

When Letarouilly published his book the documents were not accessible from which he might have extracted some measure of truth concerning the authorship of the building. Besides, Letarouilly was not an historian and did not feel the same obligations as an historian; his prime object was the presentation of architectural measurements, not the digested re-



CORTILE—PALAZZETTO DI VENEZIA, ROME.

sults of historical research. And Letarouilly admirably accomplished the main end he had in view. The reader of this discussion is earnestly urged to consult Letarouilly's plates (Vol I) of the Palazzo di Venezia and of the Palazzetto as a valuable complement to the illustrations here presented.

While heartily commending Letarouilly's work, a word of caution should also be added anent Vasari. He is a dangerous guide and his statements are to be accepted only with large reservations. Even then, it is advisable to accord his data but conditional credence unless corroborated by the evidence of more trustworthy chroniclers. Vasari was not only accidentally inaccurate or careless in his biographies, but indulged in wilful misrepresentations when it happened to suit his purpose so to do, frequently allowing himself to be actuated by his bias either for or against the men whose lives and achievements he was setting forth, or

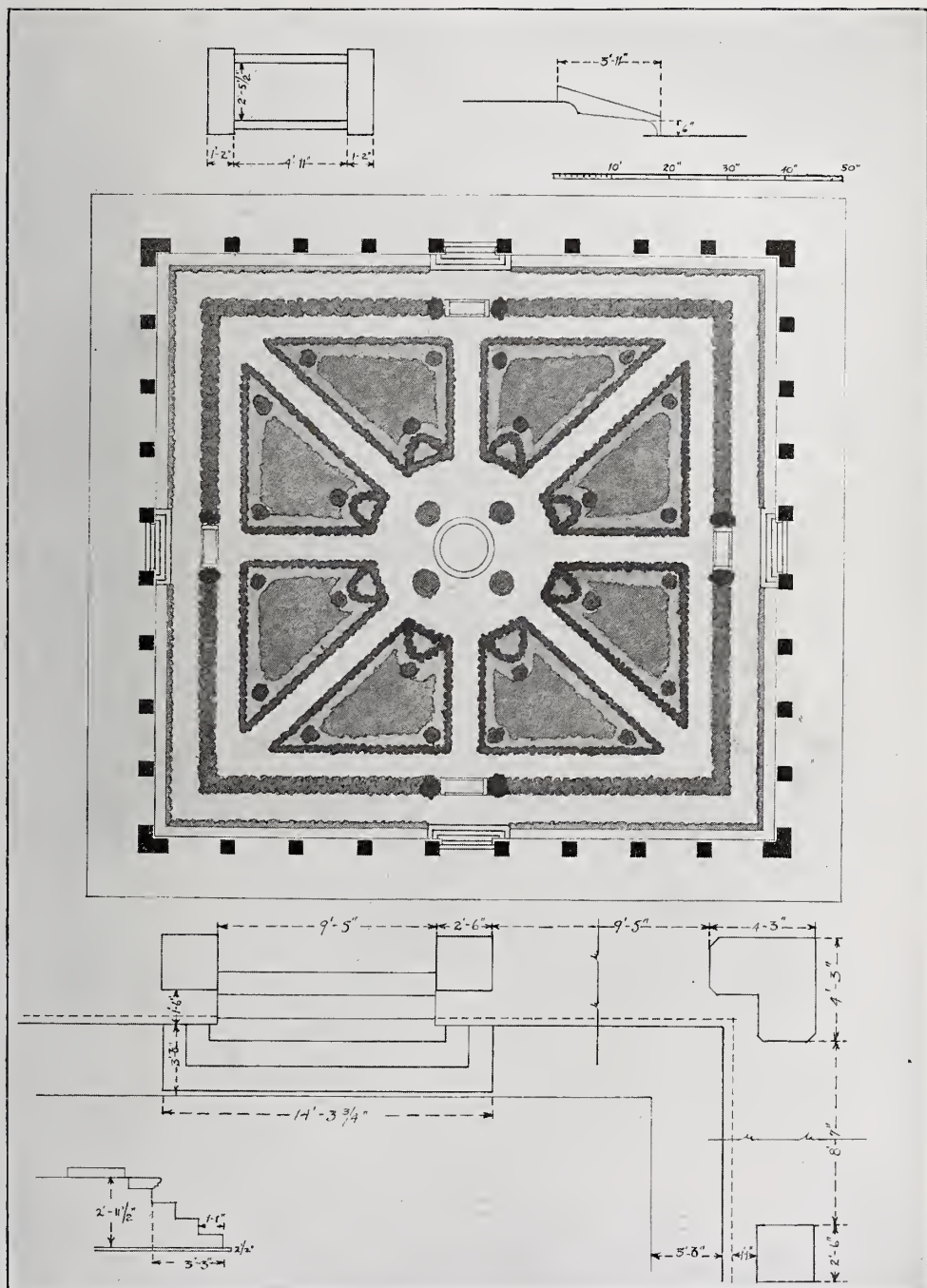
else yielding to some petty animosity or jealousy aroused by a rival biographer.

Giuliano da Maiano had nothing to do with the Palazzo di Venezia so far as the expense registers show, nor is there any other consideration to warrant us in giving him credit for the design. Furthermore, when work on the palazzo was presumably begun, Giuliano da Maiano was but three-and-twenty years old, and it is extremely improbable that Cardinal Barbo would have summoned to Rome a youth, who had not yet fully proved his powers, to place him in charge of a most important commission. It is not impossible that in this instance Vasari may have confounded Giuliano da Maiano with another Florentine Giuliano, Giuliano da Sangallo, who really was employed on the work, as we shall see by and by, though not as the architect in charge.

The names of Bernardo di Lorenzo and of Francesco del Borgo have also been connected with the palace of Saint Mark



WELL IN CORTILE—PALAZZETTO
DI VENEZIA, ROME.



Drawn by Robert B. C. M. Carrère

CORTILE PLAN AND DETAILS—
PALAZZO DI VENEZIA, ROME.

as its possible architects. Francesco del Borgo was not an architect at all, but a papal secretary and accountant, whose name appears, from time to time, in the contracts. Lorenzo was an architect and was employed in the continuation of work upon the palace, but in the capacity of a contractor engaging, along with others,

any general matters of design. It was obviously their business to carry out the designs of others.

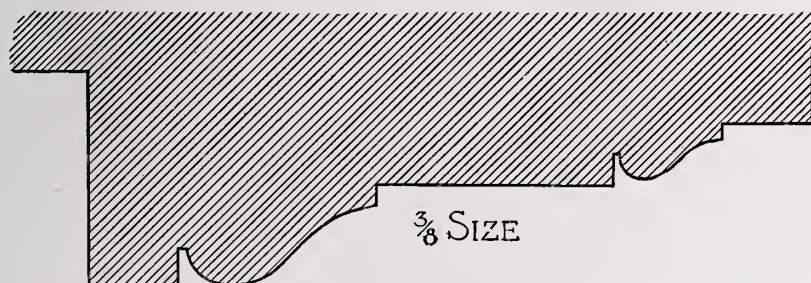
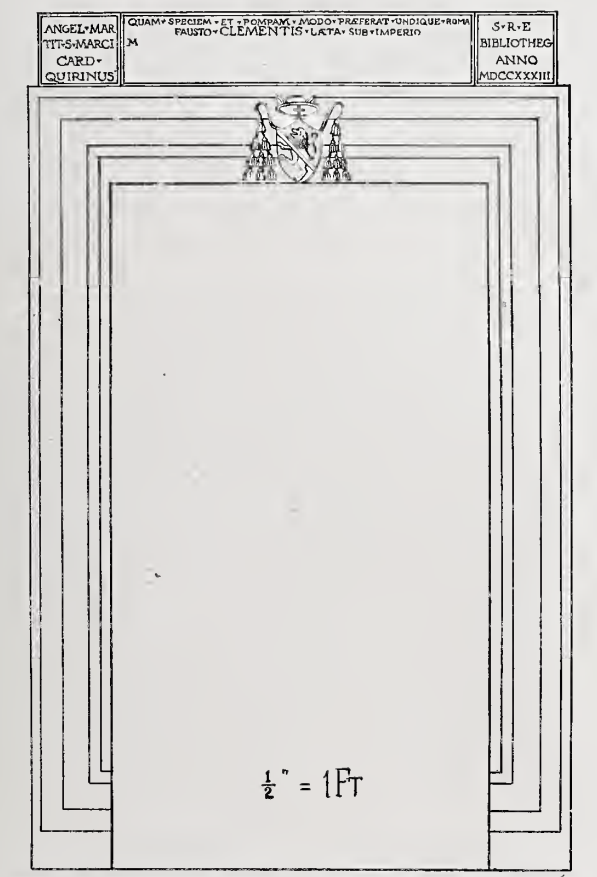
In the same way, Giuliano da Sangallo (born 1445), who was twenty years old at the time, appears in the rôle of a contractor busied with masonry work, while Meo del Caprino—that same Meo who



DOORWAY IN CORTILE—PALAZZO DI VENEZIA, ROME.

to lay foundations, build walls, and perform similar services, conformably to the terms stipulated in the contract and the *measurements and plans furnished them*. All the provisions of the agreement are clearly set forth. There is no misunderstanding them, and it is perfectly plain that neither Bernardo nor his contracting associates had any voice in determining

designed the Cathedral of Turin—was part of the time supervising those that hewed the blocks of travertine, part of the time performing the more delicate and interesting task of fashioning fireplaces and similar items of adornment. It was quite in accord with the usage of the times that highly experienced men should thus, as assistants to the master architect,



DETAIL OF DOORWAY IN CORTILE—
PALAZZO DI VENEZIA, ROME.

assume subsidiary responsibilities and become quasi-contractors. For the younger men it was a part of their training. It was also in accord with the usage of the times that these contractor-assistant-associates—the relationship is exceedingly difficult to define precisely in modern terms—should often have not a little latitude in the performance of their several tasks and in the execution of details, being thus enabled to impress, here and there, a touch of their own individuality upon the total composition.

As to the architect upon whom rested the direction of the whole work and to whom we must attribute the design, no categorical statement can be made with the full certainty one could wish. In March, 1466, Giacomo da Pietrasanta appears as one of the witnesses to the contract with Bernardo di Lorenzo for his share in the continuation of the work upon the Palace and Basilica of Saint Mark, a connection already alluded to. Giacomo da Pietrasanta, sculptor and architect, executed important work in Rome under Nicholas V and again under Pius II, so that his favorable reputation was established. As M. Eugène Müntz points out in his valuable work, Giacomo's presence as a witness to the aforesaid contract with Lorenzo "was probably not a matter of chance, and we shall not be far from the truth in believing that at that time he already had a previous connection with this double undertaking." In 1467, mention is made of his supervision of the sculptures in the Palace and in the adjoining Basilica, and in 1468 he is referred to in the records as director of works at the "apostolic palace." To quote Müntz again, "if artists of such ability" as Sangallo, Meo del Caprino and others, "consented to work as simple artisans, sometimes by the piece, sometimes by the day, was it not because they had over them an exceptional head, one of those masters of dominating genius? . . . Will anyone accuse us of rash assumption if we recognize him, not perhaps as the sole architect, but as one of the architects of the Palace of Saint Mark?"

A glance at Letarouilly's plan will show the general arrangement of the

palazzo, the basilica and the palazzetto, and their relation each to the other. According to this plan, the palazzetto projects from the *southeast* angle of the palazzo. This was its position until it was removed to make room for the Victor Emmanuel Monument—one of those two sore thumbs of modern Roman architecture, of which the other is the Palazzo di Giustizia—after which it was carefully re-erected in its present place, *southwest* of the main portion of the palazzo.

The *cortile*, of which a plan, including the garden arrangement is given, is the really significant feature of the palazzetto because, designed as it was primarily for a garden enclosure—in the expense records and other documents it is always referred to merely as "the garden"—it consisted chiefly of a rectangular open space shut in on all four sides by ground floor and first floor loggias, "built up on the outside with a façade." "For the rest," as Letarouilly observes, barring a few small apartments, "there is no interior arrangement proper to render habitation possible; there is not even any direct entrance" from the outside. When the palazzetto was moved, provision was made for more rooms opening into the loggias and the exterior was modified in plan to form an exact rectangle. This slight change was deemed permissible inasmuch as the *cortile* with its surrounding loggias—the real *raison d'être* of the structure—was left untouched and as the new site, furthermore, was wholly rectangular.

The most important and interesting changes effected in the Palazzo di Venezia since Letarouilly's time are the restorations undertaken following the recent departure of the Austrians from their long usurping tenure. First and foremost comes the rehabilitation of the Sala Regia, now in progress, an apartment on the first floor or *piano nobile* of the north side of the palazzo. To put this great room in its original condition is a formidable undertaking whose difficulties might well dismay anyone less ardent than those engaged in the task. In the first place, it involved an enormous quantity of the





RESTORED INTERIOR DOORWAY—
PALAZZO DI VENEZIA, ROME.

most painstaking detective work and the penetration of successive alterations, made during more than four centuries, to determine exactly what was there when the room was first completed. Fortunately, the discoveries made have abundantly rewarded the faith of the investigators and the convincing proofs they have been able to establish have justified their labours.

In the second place, restoration necessitated the removal of two massively built stone partition walls, four feet or more in thickness, and the demolition of a floor, so that all the space for many years comprised within *six* large rooms, on *two* floors, by this process was thrown once again into *one* noble hall about a hundred and twenty feet long, forty feet high, and more than forty feet wide.

To embark on this project with the intent of accurate restoration meant, furthermore, the exercise of mature discrimination in determining to just what extent the work should be carried, what particular manifestation of past development should be esteemed worthiest of preservation, and how much ought to be obliterated in order to get back to the original condition.

In any venture of restoration involving the destruction of old work, later, however, than the original creation, the restorer is almost always the target of hostile criticism on the part of those who consider that what is already possessed of venerable antiquity should not be sacrificed to lay bare an earlier work of problematical value or completeness. Fortunately, in the case of the Sala Regia and of the Sala del Mappamondo, which latter we shall have occasion to discuss by-and-by, the evidences of the fifteenth century decorations, attributed to Bramante, were so convincing, and the mural embellishments of later date were so obviously inferior in character, that the restorers were justified in their undertaking from the outset.

Although the fifteenth century plaster surface of the walls had been destroyed in places by the partitions and floors which subsequently cut the apartments up into smaller rooms, the fresco incisions for the original decorations were sufficiently dis-

cernible for the restorers to reconstruct the whole scheme of ornamentation. After the removal of the later mural paintings some of the pristine colour was found to be as fresh as when first applied, while elsewhere there was enough clear evidence to guide conscientious restoration. One of the illustrations shows the complete scheme of fresco restoration for one of the long walls of the Sala Regia. Pilasters, bearing arabesque and candelabra ornament on their panelled shafts, in a long series support an entablature whose highly enriched frieze displays a succession of roundels upon which are depicted the heads of the Roman Caesars whence, it would seem, comes the name of the apartment.

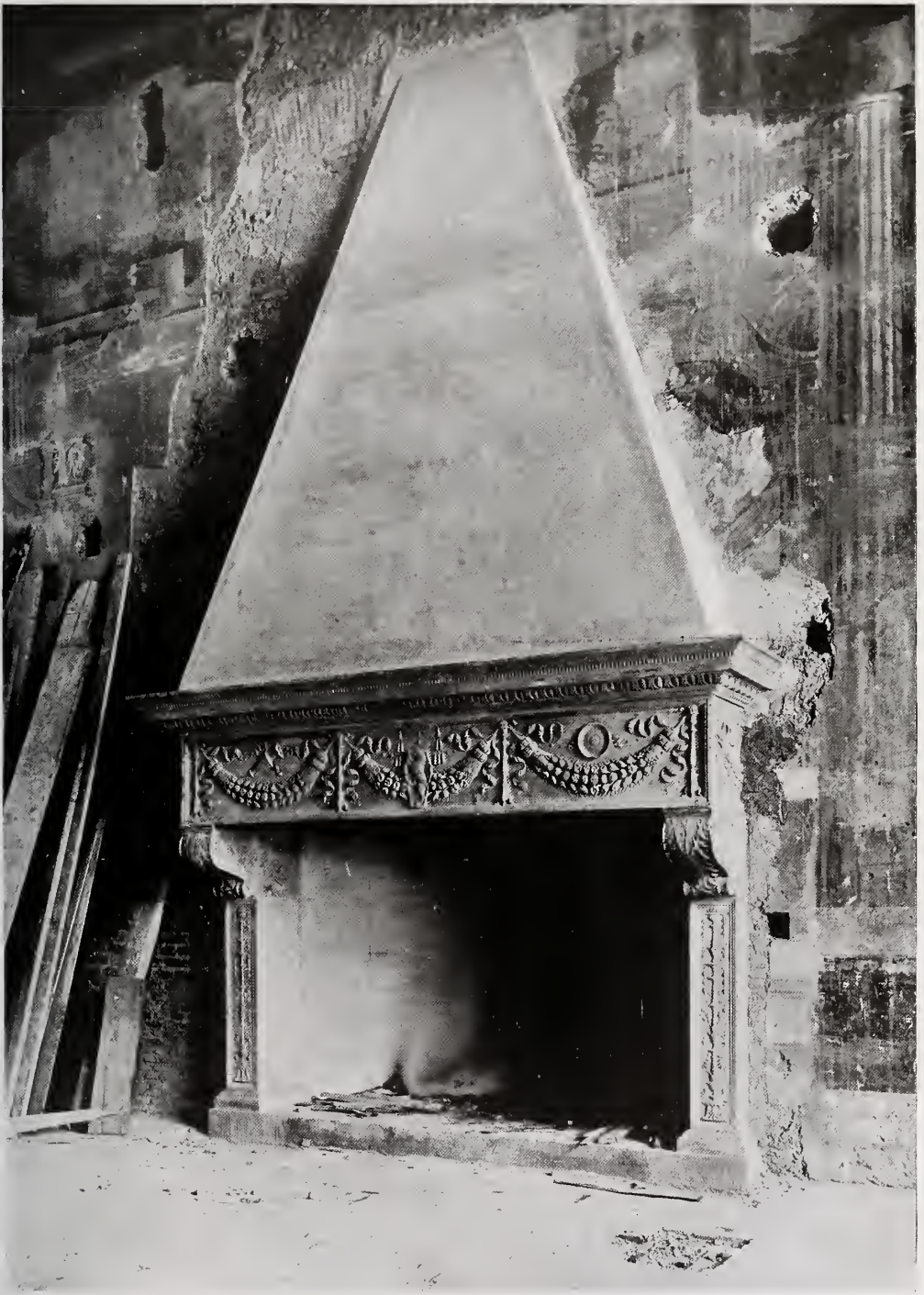
In the Sala del Mappamondo, a hall of equal height with the Sala Regia but of less length, occupying part of the eastern front of the *piano nobile*, the labour of rehabilitation was of scarcely less extent. How formidable was the task confronting the restorers may be gathered in some measure from the illustration which shows small portions of the original fifteenth century fresco appearing where the later coats of mural painting have been removed. With what care the work is conducted may also be judged from the same illustration which clearly reveals the superposition of several coats of mural painting, of different epochs, one over another. These coats it is customary to remove one at a time with scrupulous caution until the original fresco is laid bare, a process which has shown that nothing worthy of preservation has been sacrificed.

One item of great moment in rehabilitating the Sala del Mappamondo is the reinstatement of the exceedingly beautiful fifteenth century marble fireplace in its proper position at one end of the room. This fireplace, of which detailed illustrations and measured drawings are shown, had been taken down and cast into the vaults beneath the palazzo, where for years it had lain amidst an accumulation of rubbish, uncared for and, perhaps forgotten.

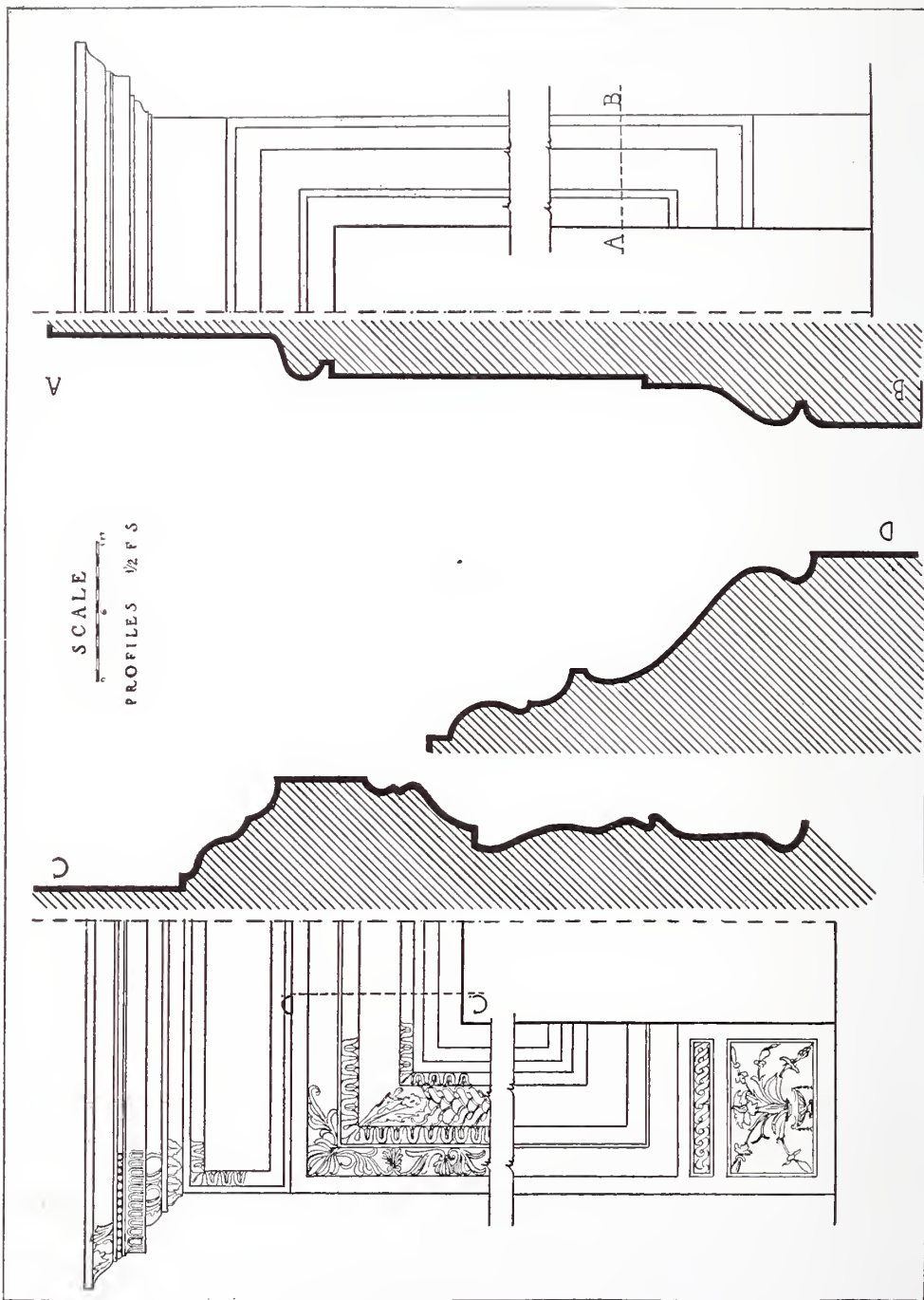
By great good hap it was not much damaged and the repairs necessary to its



RENDERING OF RESTORATION, SALA DEL MAPPAMONDO,
PALAZZO DI VENEZIA,
ROME.

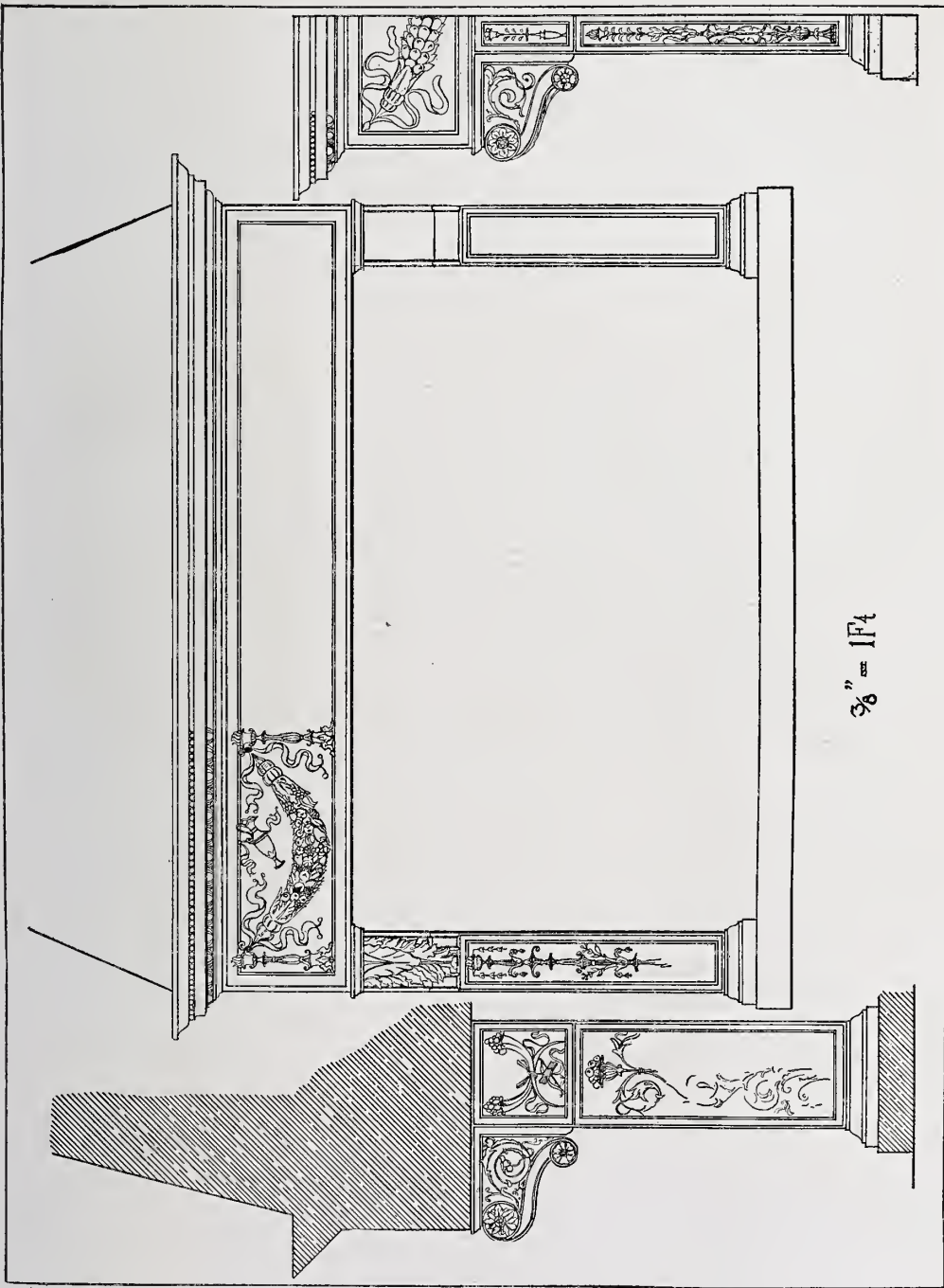


FIREPLACE IN SALA DEL MAPPAMONDO,
PALAZZO DI VENEZIA, ROME.



DETAILS OF INTERIOR DOORWAYS,
PALAZZO DI VENEZIA, ROME.

Profiles are one-half full size.



Profiles are $\frac{3}{8}$ " full size.

DETAILS OF FIREPLACE IN SALA DEL
MAPPAMONDO—PALAZZO DI VENEZIA, ROME.



FIREPLACE DETAIL IN SALA DEL MAPPAMONDO,
PALAZZO DI VENEZIA,
ROME.



FIREPLACE DETAIL IN SALA DEL MAPPAMONDO,
PALAZZO DI VENEZIA, ROME.



INTERIOR DOORWAY — PALAZZO
DI VENEZIA, ROME.

complete restoration were slight. Quite aside from its intrinsic grace and elegance, it is a significant and striking witness to the character of the best work of its kind wrought in Rome at this vigorous and engaging stage of the Renaissance. The conception, though fully coincident with the accepted ideals of the time, is bold and free and the execution, while forceful, is also full of delicate refinement. The technique, especially in the quality of the relief upon the frieze, is perceptibly different from what one ordinarily finds in contemporary Florentine work and attests the hand of exuberant genius giving rein to a full-flavored vivacity which elegant and intellectual Tuscan usage would have held under greater restraint. The craftsman had caught and was expressing the spirit of travertine Rome rather than the spirit of sandstone Florence. Who that craftsman was it is perhaps too much to hope to say with perfect certainty, but Meo del Caprino seems one of the likeliest persons to whom the honour should be given.

The carved marble architraves and cornices of the doors of the Sala del Mapamondo and of other rooms in this suite on the *piano nobile* are of scarcely less interest than the fireplace. In one respect their present condition is more interesting. They, too, had been cast into the vaults as useless rubbish and in not a few cases were badly shattered. But they have all been rescued and put back in place, and where sections had been wholly lost or were too badly broken to be saved, the missing parts have been supplied by admirable *stucco-duro* restorations which, without the closest scrutiny, it is difficult to distinguish from the original marble. From the illustrations it is possible to see what was the condition of

some of the architraves prior to the recent restoration; it is also possible to see the way in which the restoration has been carried on.

The beamed and painted ceilings, where not actually destroyed or completely obliterated with deliberate intent, have not fared so ill as some of the other features. Both in colour and design they present an illuminating example of fifteenth century ceiling embellishment and a wealth of inspiration to those interested in this method of decoration. Indeed, when the work of restoration shall be fully accomplished, every detail of this great fabric will be deserving of close enquiry by architectural students, both as a matter of education and also for the items in a vast body of precedent for purposes of timely adaptation.

After the restorers have finished their task we may confidently expect that the Palazzo di Venezia will reflect the full measure of credit upon the unknown architect who planned it—whether that architect may have been Giacomo da Pietrasanta, whose name has already been mentioned; or Rosellino, who wrought so extensively for Pius II; or Manfredo di Como, whose connection with the building is beyond question; or, as Doctor Corrado Ricci supposes, Leon Battista Alberti, whose fame and influence were paramount when the Palazzo was begun, and who often gave advice and drawings without taking a further hand in the erection of a structure about which he had at first been consulted. The time is not yet to make a final attribution. Perhaps we shall never know to whom the greatest share of credit is due. In any event, whoever the master may have been, posterity owes him an incalculable debt of reverence and gratitude.



MAIN ENTRANCE—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN. FRANK J. FORSTER, ARCHITECT.

The
RESIDENCE of JOHN H. TYSON, ESQ.
RIVERSIDE. CONNECTICUT

FRANK J. FORSTER, ARCHITECT



By Herman J. Butler

TO classify the Tyson house as a successful adaptation of Norman or early English domestic architecture would assist but little in the appreciation of its essential character. Classification as to style is seldom exact or significant, and all too frequently is based on purely superficial details. Furthermore, insistence on such classification would tend to create a false impression of the manner in which the architect approached his problem. The Tyson house has the charm which obtains where honesty of construction and simplicity of design are emphasized. There is no forcing of plan or construction into the characteristic forms and decorative details of a particular period. This does not imply, however, that the very subtle quality of style is lacking. On the contrary, the house does possess a distinctive style, one of great beauty, that is inherent in the structure itself. If, therefore, it recalls some of the fine architecture of Northern France or early work in England or in this country, it is because the house measures up to the standards by which we gauge the merits of this early work. It is not because the house has been carefully modeled on similar lines.

The first impression is of a building admirably suited to its location—of long, low, restful lines, of consistent design. Though presenting interesting variations of details and mass, these have been handled with due regard to the unity of the composition. No feature asserts itself too prominently or detracts from the studied simplicity of the general effect.

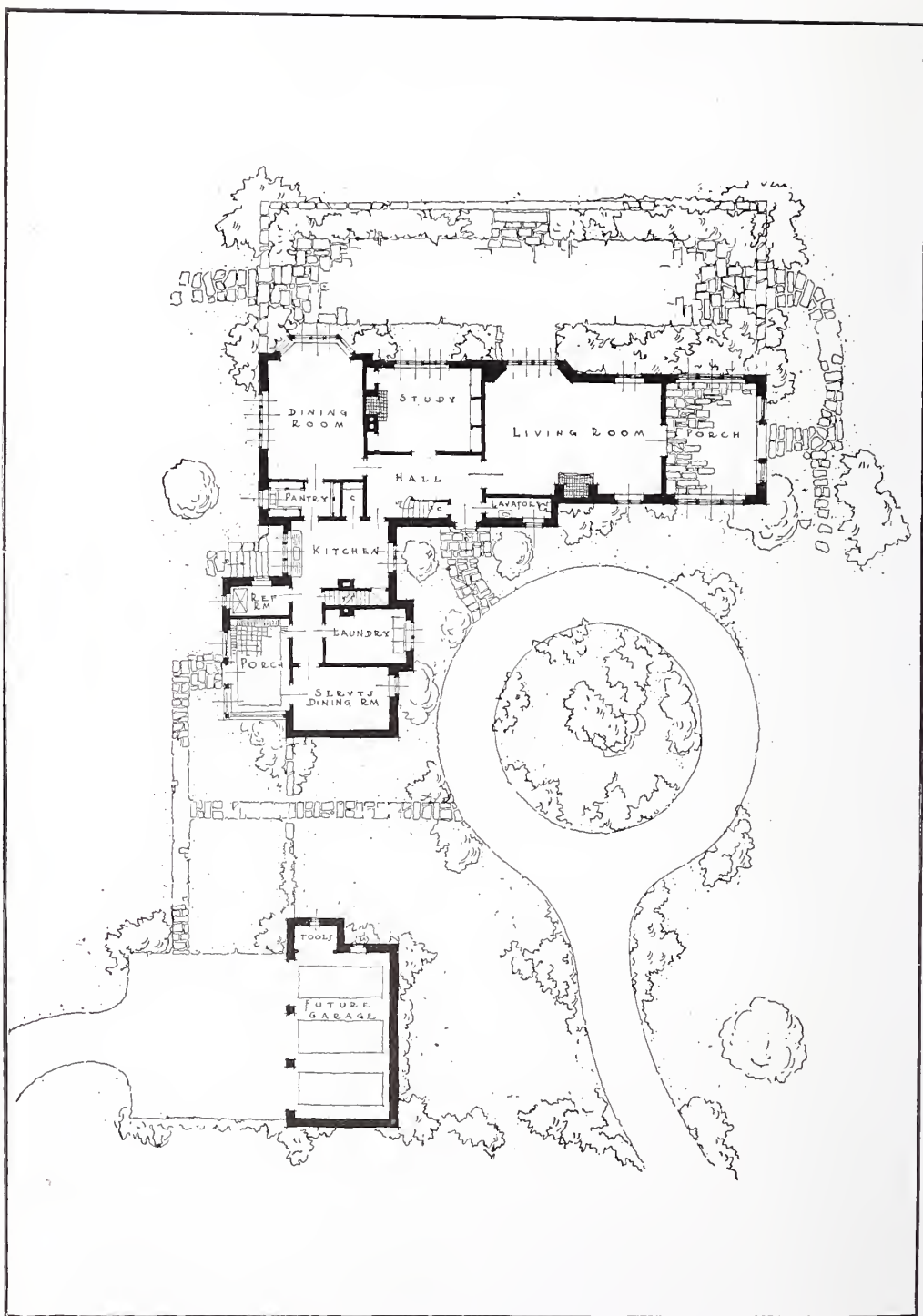
The architect was fortunate in having to plan for a site that is one of the most attractive spots along the Sound, an ideal location for a country house. The natural beauty of the setting, the diversified and picturesque views which unfold at every turn, all contributed to the interest of his

problem. Occupying a commanding position on a low rolling hill, the house is visible for great distances, and can be seen readily from every angle. This implies a severe test of architectural merit. The design fulfills this exacting requirement, massing or composing well from every view point. Here is no distinction, a frequent and unfortunate one, of "front and back" architecture. In an isolated building, it is incumbent upon the architect to approach his problem much in the same spirit as would a sculptor designing a free standing figure. His efforts must be to create a thing of beauty from every point of view. In this respect, Mr. Forster has been particularly successful.

That the house fits into its environment is due in a measure to the material used in its construction. The walls of local stone range in color from buffs and tans to cool greys, harmonizing closely with the variegated shades, carefully graded, of the slates used in the roof. The wood throughout is oak, stained a natural brown. The whole is a color combination soft and pleasing in effect and one that blends admirably with the landscape. Due attention has been given to the equally important element of surface textures, both in the selection of the materials and in their manipulation. Excellent craftsmanship characterizes the results obtained.

With good lines, well disposed masses, good materials, pleasing alike in tone and texture, there is no demand for further elaboration of architectural motives or decorative accessories. Rightly handled, there is here all that is requisite for the creation of architecture of merit. The Tyson house is an illustration of the gratifying results that can be achieved by insistence upon these fundamentals in building.

In plan, the house is L-shaped, the service part being developed at a right angle



PLAN OF GROUNDS AND FIRST FLOOR—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN.

FRANK J. FORSTER, ARCHITECT.



FRONT ELEVATION—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN. FRANK J. FORSTER, ARCHITECT.



RESIDENCE OF JOHN H. TYSON, ESQ., RIVERSIDE, CONN.
FRANK J. FORSTER, ARCHITECT.



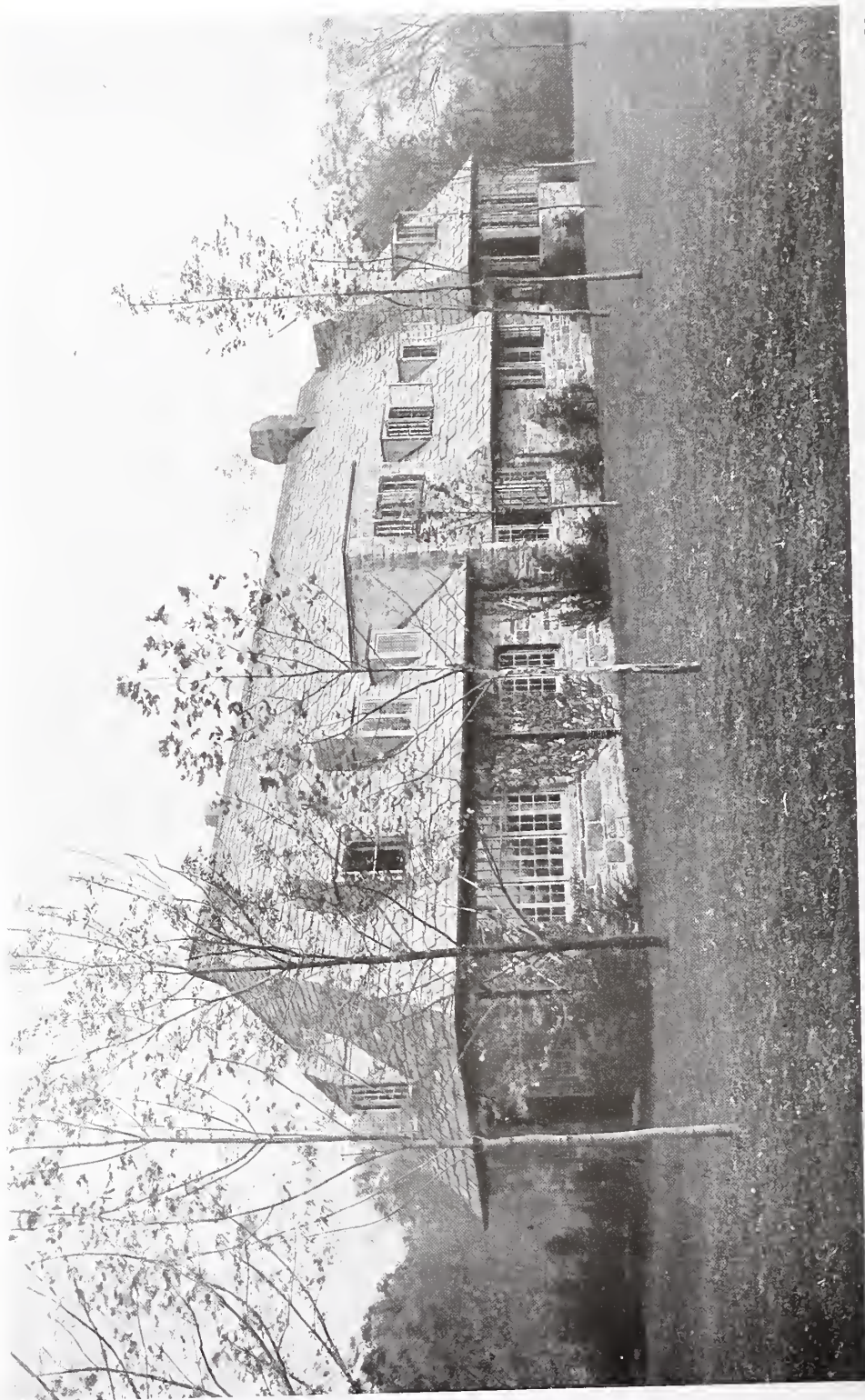
RESIDENCE OF JOHN H. TYSON, ESQ., RIVERSIDE, CONN.
FRANK J. FORSTER, ARCHITECT.



RESIDENCE OF JOHN H. TYSON, ESQ., RIVERSIDE, CONN.
FRANK J. FORSTER, ARCHITECT.



SIDE ELEVATION—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN. FRANK J. FORSTER, ARCHITECT.



SIDE ELEVATION—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN. FRANK J. FORSTER, ARCHITECT.



DINING ROOM—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN. FRANK J. FORSTER, ARCHITECT.



RESIDENCE OF JOHN H. TYSON, ESQ., RIVERSIDE, CONN.
FRANK J. FORSTER, ARCHITECT.



RESIDENCE OF JOHN H. TYSON, ESQ., RIVERSIDE, CONN.
FRANK J. FORSTER, ARCHITECT.



HALLWAY—RESIDENCE OF JOHN H. TYSON, ESQ.,
RIVERSIDE, CONN. FRANK J. FORSTER, ARCHITECT.

to the main building. The service portion is complete in itself. Access to the main wing is direct and convenient. At the same time, the plan has the advantage of permitting the closing off of this wing from the main part of the house. A more important consideration, one which directly influenced the design, is apparent upon examination of the living rooms. The finest views are those of the Long Island Sound visible from the windows along the south side of the house, a picturesque wooded glen seen from the windows on the east side of the dining room, and the uninterrupted view of the Sound Inlet and the distant country obtained from the living room porch. The arrangement serves to unify and to emphasize the living rooms and master's rooms as a whole.

The entrance is particularly inviting; a long winding road ends in a loop within the angle formed by the planning. The entrance door, very simple in design, opens directly into the heart of the house, into a large hall which connects with the living, library and dining rooms. These are all of generous proportions, their size accentuated by the low ceiling height.

The living room, thirty feet by nineteen feet six inches, is adapted to a fine decorative treatment. It is a room that will furnish well. The fenestration has been planned so that ample wall spaces are provided for the large pieces of furniture that are to be placed against them. The walls and ceiling are of sand finished plaster. The floor is of oak boards laid in random widths. The doors are heavy batten type with solid oak bucks. The trim is plain oak, stained.

A living room in a country house like this must fulfill a variety of functions, be appropriate for a wide range of social purposes. It would be easy to over-emphasize the formal architectural aspect of such a room or to err by wholly disregarding this essential. Here the architect has avoided these two extremes and has created a room, dignified and comfortable, possessing a most attractive atmosphere.

The sun room, large, comfortable and well lighted with casement windows on three sides, is an attractive extension of the living room, one which greatly assists

that room's varied functioning. The fenestration is so arranged that the continuity of the wall veil is clearly defined and therefore no weakening of the exterior design results.

The dining room at the opposite end of this wing is one of the finest rooms in the house. The group of windows along the east side and the wide range of casements in the bay at the south end of the room insure a wealth of sunlight and open upon a varied and interesting prospect. The long west wall is adapted to the placing of the side board or dresser. A convenient location for the serving table is provided on the north wall, at the side of the service door. The bay is sufficiently broad and deep to be used as a breakfast alcove, without crowding the space occupied by the large dining table. In short, the room properly lends itself to a well balanced and formal disposition of its furnishings.

The library, entered through the hall, is a small room made inviting by rows of open book shelves lining the west wall from floor to ceiling and by the generous proportions of the fireplace opposite. It, too, has a row of casements commanding a view of the Sound to the south.

Although this is not a large house, there is an air of spaciousness about all of the rooms that gives the impression of a much greater floor area. This, no doubt, is due in part to the low ceilings, and is also attributable to the restraint, the simplicity of detail which characterizes the whole design. The exterior gives much the same impression. Here the low walls, the emphasis of the horizontal lines, increase the apparent size of the structure. The substantial nature of the building materials adds a note of durability and strength that is particularly pleasing.

The photographs show the house without the contemplated landscape development. The planting about the house will be extended on the southern side into a semi-formal placing of shrubbery, grass plots and flagged walks. The service yard is to be screened; the walks and roads throughout the grounds bordered with well disposed masses of trees and shrubs.

THE BUSINESS OUTLOOK *for* 1923



*By Willford I. King, Ph.D.
of the National Bureau of
Economic Research, Inc.*

WITH circumstances as they are, the position of the forecaster can scarcely be regarded as an enviable one, and the safest policy for the statistician to follow is to force some one else to assume the risk of error. A convenient way of accomplishing this end is to teach the business man the language spoken by those figures in which he is most interested and then to turn over to him the entire responsibility of interpreting their tales. This conservative course is the one to which I propose to adhere in the following pages.

One subject in which every individual is perforce interested is that of prices. We all desire to know whether the current year is likely to see a rising, or a falling, price level. If we wish to solve this problem we may well begin by turning to any standard index of wholesale prices, such as Dun's, Bradstreet's, or that published by the United States Bureau of Labor Statistics.¹ All of these indices tell essentially the same story—namely, that prices reached a dizzy height in the first half of 1920 and then fell precipitously until the middle of 1921. During all of 1922, however, they have been rising—at first slowly, but of late more rapidly.

How long is this upward swing likely to continue? Let us judge the future by the past. After the low point in 1904 the price level climbed steadily for about thirty-two months. Following the panic of 1908 it took about twenty-two months for a new crest to be reached. After the mild depression of 1911 the price rise continued for nineteen months. The sharp rise due to war inflation makes it

difficult, if not impossible, to locate the crest of the wave immediately following the 1914 panic. Following the decline, which reached its lowest point in 1919, prices rose for only about fourteen months. The average length of these four upward wave movements is about twenty-two months. According to Bradstreet's index, prices have already (December 1, 1922) climbed during the present cycle wave for eighteen months. Dun's index number shows a continuous rise for seventeen months. The Bureau of Labor index, which includes relatively fewer raw materials and more finished products, indicates however, that prices have been on the up-grade for only eleven months. This evidence is manifestly not such as will justify rigid conclusions. The reader can, however, weigh the facts, and then form an opinion as to whether the price peak is most likely to occur in the spring, the summer, or the autumn of 1923.

The inferences drawn from the data just presented may be tested by means of other criteria. Most statisticians are familiar with the fact that, during a boom, stock prices usually reach their peak several months before commodities at wholesale attain their highest prices. Let us compare, then, for different cycles, the dates when the average price of a selected group of industrial stocks and Bradstreet's index of wholesale prices reached their respective crests. Stock prices were at their top in January, 1906, but commodity prices did not strike their high until March, 1907, or fifteen months later. The next peak for stocks occurred about October, 1909, and commodity prices attained their highest point in April, 1910, only six months later. Stocks rose to a crest again in September, 1912, while commodities continued to climb until December of the same year,

eighty

¹The two first indices mentioned are found in the magazines of the same name and are quoted in the daily papers. The latter two are published currently in the Census Bureau's *Survey of Current Business*, and the record for the entire period from 1890 to 1920 is published in *Bulletin* 296 of the United States Bureau of Labor Statistics.

the interval in this case being only three months. The next high point for stock values occurred in November, 1916. This peak apparently corresponds to the hump found on the wholesale price curve in July, 1917—or eight months later. The next high point of the stock market was in November, 1919. It was followed by a peak in the commodity price index in May, 1920. In this case the difference in dates is six months. The average of the preceding intervals denotes a tendency for wholesale prices to lag some seven or eight months after stock prices. It may be advisable, then, for the reader to study the recent course of the stock market before he forms his final conclusions as to the length of time the present upward movement of wholesale prices is likely to continue.

In the past, wholesale prices and pig-iron production have apparently reached their highest points at about the same dates. The latter quantity began to increase in September, 1921, and has been on the up-grade most of the time since. However, the late summer of 1922 saw a sharp decline in the pig-iron output, but apparently this falling off was directly due to the coal strike, for, in September, the upward course was resumed, and the movement is still continuing. The probabilities are that the daily output of pig iron will pass well above 100,000 tons before this boom is over. Should price indices continue to parallel pig-iron output it appears likely that no price decline will occur until such a rate of production has been attained.

If events in this cycle follow the same sequence as heretofore, there are a number of other indicators which also point to a further price rise. The unfilled orders of the United States Steel Corporation are still scarcely up to normal. Interest rates are just beginning to rise, and the number of failures has not yet sunk to a low level. All of these signs have in the past indicated a continuance of the upward price movement.

Furthermore, the Federal Reserve vaults are literally overflowing with gold which is presumably fairly aching to be used as a basis for the expansion of bank

loans; and expanding bank loans have usually been accompanied by higher price levels.

While the wary man will never place absolute confidence in any or all of the indicators just mentioned, the fact remains that he who ignores them will, in the long run, go astray far more often than will the one who heeds their warnings.

Having thus examined the evidence concerning the probable course of wholesale prices it is worth while now to devote attention to some other important factors which also undergo cyclical oscillations.

It is a well-known fact that retail prices usually follow rather closely the course of wholesale prices, though their movements normally lag from three to six months after the latter. The chances are, then, that the man who forecasts correctly the course of the wholesale markets will be able to guess the approximate path that an index of the prices of consumption goods will take.

House rents also move¹ in a general way in accord with the prices of goods at wholesale, but their movements come at least a year later. Since the distinct upturn in commodity prices did not come until the beginning of 1922, one need not be surprised if house rents fail to rise materially before the opening of 1923. Should they continue upward throughout 1923 this fact will, for the reasons stated in a previous article², tend to make residence values higher.

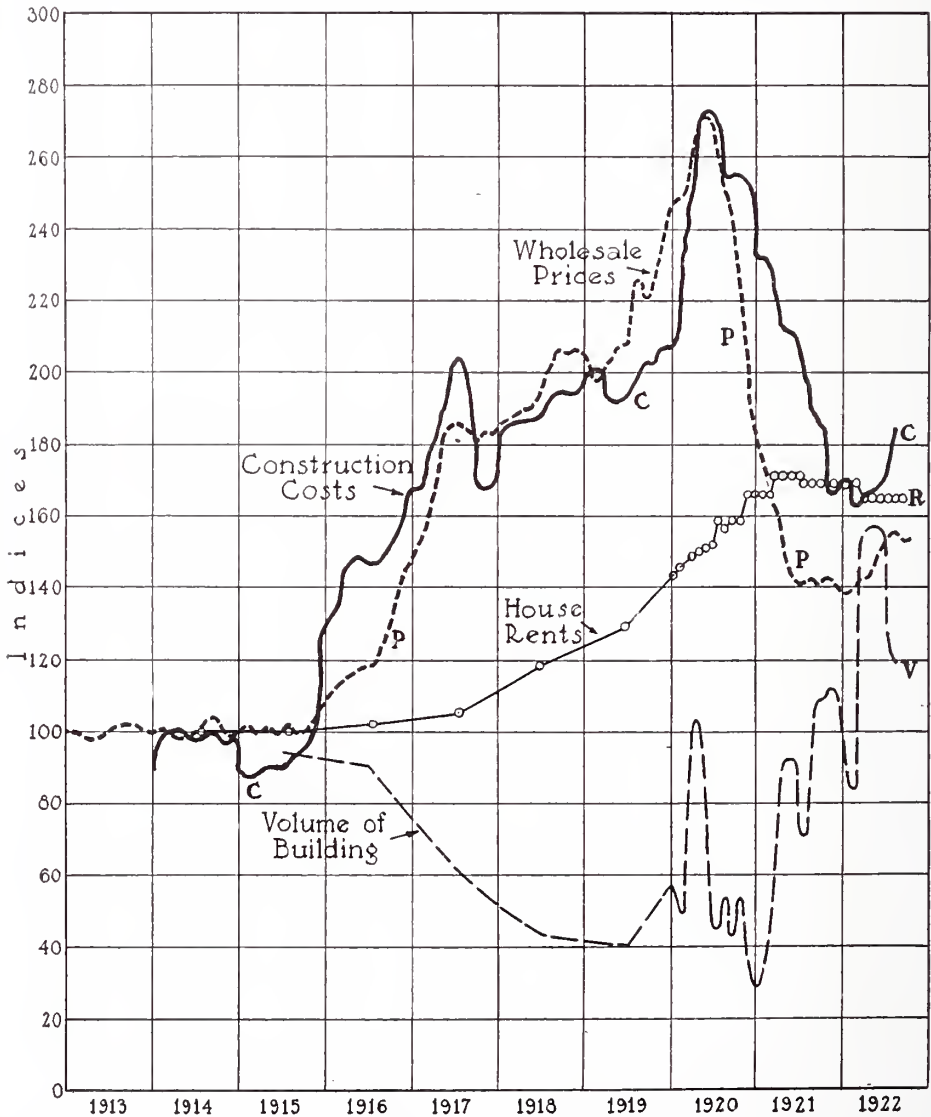
House rents, however, presumably because of the effects of custom, usually fluctuate less widely than do prices of commodities at wholesale, while the latter ordinarily tend to vary at about the same time and to about the same degree as do construction costs. Recently, construction costs have been rising rather sharply³, while rents have scarcely begun to move upward. That this difference in rate of movement is one of prime significance to

¹For records of changes in house rents see the bulletins of The National Industrial Conference Board and of the Federal Reserve Bank of New York; also *The Monthly Labor Review*, published by the United States Bureau of Labor Statistics.

²*The Architectural Record*, May, 1921, pp. 433-439.

³See the *Survey of Current Business*, published by the United States Department of Commerce.

HOW RENTS AND BUILDING COSTS AFFECT THE VOLUME OF RESIDENTIAL CONSTRUCTION



R= House Rents according to the National Industrial Conference Board.

P= Wholesale Prices according to the U.S. Bureau of Labor Statistics.

V= Index of Square Feet of Residential Construction as reported by the F. W. Dodge Co.

C= Construction Costs as reported by the Engineering News Record.

the builder is made very evident by a glance at the accompanying chart. One observes there that, at the close of 1915, the construction cost index departed sharply from that representing house rents, and did not return to it again until nearly the end of 1921.

During all this time, except for one brief period, the volume of residence construction remained far below normal. However, as soon as construction costs began the rapid decline of 1921, the volume of construction began to increase rapidly, and the trend continued sharply upward until the middle of 1922, when the cost index started up again. During the last few months there has been a marked falling off in the volume of residence construction. Is this merely a temporary recession, to be followed by a tremendous boom next spring? Since the statistician has resigned his position as prophet and has introduced the reader to the secret mysteries of statistical science, the latter will now be left to extricate himself from the maze as best he may. He must form his own opinion as to whether or not wholesale prices will

continue on their upward course; whether or not construction costs will, as heretofore, parallel wholesale prices; whether or not rents will rise as rapidly as construction costs; and, if they do not, what the effect is likely to be upon the volume of residence building in 1923. Should his conclusion be that the building boom is headed for an early collapse he will do well before he sinks into the slough of despond to consider the fact that the peak period for the construction of public, educational, and religious edifices seems normally to occur several months after the crest of residence building has passed, and that, no matter what happens to residence construction, stagnation in the building industry may not be imminent. He may also be wise to keep the fact in mind that most students of the subject agree that, for several years past, the volume of building was distinctly below normal¹. There always remains, then, the alluring possibility that the present boom will not collapse until this shortage has been wholly made good.

¹For a discussion of this point see *The Architectural Record* for June, 1921, pp. 512-517.



**The Architectural
League, a
Clearing-House
for Professional
Information
and Discussion**

So many societies founded in previous decades, appear to have been instituted with the aim to provide occasions upon which the eminent may disclose their achievement and receive the well-earned plaudits of their peers. The poor attendance registered at many such meetings, despite the fact of the comparatively large number of individuals who have the requisite capacity for interest and benefit, points to the need for a readjustment of contacts. The gravest error would be committed were any change made which might tend to depreciate the quality of scholarship displayed at these gatherings; any change of policy should be in the choice and treatment of subjects, and should cater to the professional deficiencies of the majority of the membership. This is rarely done. There is often a natural tendency in those who have surpassed the rank and file in intellectual and artistic fields, to recognize but two classes of individuals, viz, the young student and the confrère. The rank and file, on whose average of proficiency the status of the calling depends, need the leader most; to them the least consideration is given in the planning and development of subjects at the Society's meetings. The audience is usually composed of individuals who are situated intellectually part-way between the student proper and the deliverer of the address. Frequently a little additional enlightenment is essential, which could readily be given when questions are invited, were not the spirit of the meeting often so stilted that the average member fears to display a lack of comprehension in a place devoted to the exhibition of attainment.

The meetings of the architectural societies were no exceptions to the types here described. There was no recognition of any other subjects than those which offered opportunity for discussion as to ethical conduct, regulation of fee, and topics of that character.

Essential though these points be, in safeguarding the best interests of the profession and the individual, activities of that character are better suited for special committees and occasional debate than as the major concentration of societies whose members have a wide range of professional interests.

The Architectural League for many years modelled itself after the American Institute of Architects, in the conduct of its meetings and the choice of subjects discussed. Probably for the reason that its spirit was imitative, the meetings were deadly and miserably attended. An unspannable chasm appeared to separate the officers from the general membership. However, with the election of H. Van Buren Morgan to the presidency, a complete revolution in the objectives of the society, and the spirit of the members was effected by him. He believed that men of a profession, or men of mutual interests, would welcome the opportunity of gathering together, if subjects were discussed which furthered their joint objectives, and that a spirit of fellowship would result, of a quality which could not be stimulated by other means. His personal charm of manner bridged over the presidential chasm, and the membership began to feel that they had an individual interest in the society. This was done without having recourse to that unpleasant imitation of the old-fashioned "atelier" atmosphere, moribund in Paris in the nineties, and buried without honor at the commencement of this century. He made the choice of subjects the special charge of Horace Moran, whose wide acquaintance and good judgment provided a most excellent programme for the first two years—a great factor in the early popularization of the Thursday evenings. The society has more than doubled its membership and the weekly attendance averages about seventy, rising at meetings of special importance to about two hundred. This season has started well; on two evenings in November, subjects of unusual interest were developed and extensively debated.

Harvey Corbert gave a most valuable lecture, of an analytical character, on the subject of the Zoning Law in Greater New York, which, having now been operative for several years, has produced sufficient examples to permit a forecast of its ultimate influence on design. The framers of the law, in their desire to obtain a degree of air and sunshine in the streets of the city, established certain restrictions as to the spaces a building may occupy when it extends beyond a fixed height of street front. These restrictions have resulted in such new and unusual building forms, silhouettes, set backs, and the like, that we must realize we are on the point of creating a world "style" in architecture. When one recalls that the mansard roof, which spread over the known world, originating only 200 years ago, was but a device to get another story or two within the restrictions of the Paris building law of that time, one may appreciate how much greater should be the effect on world architecture of the changes wrought in this great city of New York, which builds more rapidly and in greater quantity than any other city. Here practically every new building has some distinct element of interest, upon its summit, or in its silhouette, that would not have been there had it been designed under the old law.

Indeed, a new and revolutionary factor has entered the whole problem of architectural design. The square-topped, flat-roofed packing box building is a thing of the past (fortunately), and we now have the step-back sky line, the intriguing silhouette, the something above and beyond, the play of masses, shadows, forms and lines where formerly only the hard line of a projecting cornice served to stop the composition. Buildings in the future will not be designed merely as "fronts," but will be studied from all angles, even that of the aviator. Architectural design has moved from a two-dimension stage (where it never should have been) to a three-dimension stage (where real design always was). Forward looking designers are now anticipating the arrival of the "fourth" dimension stage. The question was asked whether architects were in any measure responsible for the formulation of the regulations. Mr. Corbert told the League that they were not consulted, as all details were drawn up by a committee composed of the leading realty operators, and that the measure was planned as a scientific adjustment of realty development and values—a point well worth recording for its future historical interest.

Harold V. Walsh, of the Columbia School of Architecture, lectured on another evening on "Building for the Eye vs. Construction Born of Reason." The following points of

vital interest were developed by him and extensively illustrated by photographs of buildings. He developed the following views:

Architectural designers are agreed that a building must appear to be stable. Visible bases, heavy corners, columns and arches are used to express stability.

The kind of mechanics which satisfies the eye is a very elementary stability used by the ancient builder, whose works we study and train our eyes to appreciate.

Today we can, by the use of engineering principles, design and build structures with a steel frame that seem to defy all of the simple laws of the mechanics of equilibrium which our eyes have learned to appreciate from older monuments of architecture.

These modern ways of building permit high buildings to be erected on plate glass window foundations, allow twelve-inch thick walls from top to bottom, give us spans of enormous width and a hundred other phenomena which are too much for the eye's appreciation of stability.

We therefore cover our structural parts with forms inherited from the past, for the mechanics of building of those days have become so well understood by the eye that it feels satisfied by the appearance of equilibrium produced by the orders, by the pyramid, by the arch and the like.

Thus we have a dual architecture: a structure that stands by the powers of reason, covered by a skin of masonry to satisfy the eye's uneducated appreciation of the mechanics of building. The eye demands the old and simple ways of building, whereas we build by higher laws of mechanics.

Should this be the aim of our architecture? Ought we not to train our eyes to appreciate the new laws of proportion which reason has found to be true? Is it right to cover a building erected by a system of construction never equaled by any age with the outworn forms of an ancient civilization, simply because we can understand those older forms better than our newer forms? LEON V. SOLON.

One of the greatest achievements of the nineteenth century was the recognition and the virtual creation of the science of archaeology and the source-method of historical study. However widely these two principles have been applied elsewhere, it is only within the past few years that they have appeared in the study of the architecture of the Colonial period of American history. The pioneers in this field were Messrs. Isham and Brown who, in their two volumes on "Early Houses in Connecticut and Rhode Island" first looked into

early records and examined structures critically. The "Georgian Period" brought out much undigested data, but we have now in the volume entitled "Domestic Architecture of the American Colonies and of the Early Republic"* a summary of all available information, structural and documentary, by Professor Fiske Kimball, the head of the McIntyre School of Fine Arts of the University of Virginia, who is already well known as the author of "Thomas Jefferson, Architect," where the same principles applied have enriched our knowledge of the man and the part he played in the classical revival.

This latest work is an elaboration of a series of lectures delivered at the Metropolitan Museum during February and March, 1920, in which was traced the evolution of the early American house. There are three great divisions of the subject matter, the Seventeenth century, the Eighteenth century, and the Houses of the Early Republic. To these are added a long chronological chart of the houses of which the date and authorship are established by documents, and twenty-eight pages follow of notes on individual houses. This is one of the most valuable parts of the book to the real student.

Primitive types of shelter are discussed and popular misconceptions of earlier dwellings are corrected. The first settlers dwelt in huts or wigwams of poles, twigs, and leaves. These, by the use of a ridgepole, were elongated into barn-like houses; such was the Jamestown church. Another earlier New England shelter was obtained by digging into the hillside and banking up the earth over logs set vertically. In 1682 at Philadelphia the dwellings were of this character. Wattle cottages with a daubing of clay were in use at Plymouth in 1621. In 1629 there was one "English" palisaded and thatched house at Charlestown, that is, built of vertical logs, an ancient type of Saxon construction.

Houses of horizontal logs, so common in Western and Southern districts some years ago, were introduced by the Swedes and Finns in Delaware. By 1654, we are told in regard to Massachusetts Bay Colony—"The Lord hath been pleased to turn all the wigwams, huts, and hovels the English dwelt in at their first coming into orderly, fair, and well-built houses." In short, the lot of the common man was better in the colonies than in England, for the free grant of wooded land enabled him to dwell in better

houses than he had at home. "There was an equalizing tendency that levelled up as well as down."

The history of the framed house is traced from the first at Jamestown, 1611, where by the care and prudence of Sir Thomas Gates there were two fair rows of houses of framed timber, two stories high, with attics. In the North, framed houses were begun in 1624 at Plymouth, and Salem by 1629 had several. Plans of the early houses are discussed, projecting stories, forms of windows, framing, filling of walls, evidence for early half-timber work discussed, outer covering, chimneys, inside sheathing, stairs, and the dating of earliest examples are fully covered. The next section is concerned with houses of masonry, brick and stone. Flemish and English bond are shown to have been contemporaneous. Interesting English work in Virginia is illustrated and also that quaint survival of mediæval art and architecture at Ephrata, a bit of the Rhineland in Pennsylvania as late as 1746.

The Eighteenth century showed the coming of the academic spirit and architectural forms, the disappearance of Gothic wooden construction, the development of symmetry, and the application of classic orders. The earlier books are reviewed and the origins of plans of noted houses suggested. Admirable specimens of true Georgian design are given, with some rare illustrations of early plans. Various floor plans of actual houses are given for comparison and the houses discussed; gables, chimneys, windows and doors, interior trim, panelling and hangings reviewed, and the whole subject illustrated with extracts from old records and rare pictures. The prototypes of certain noted chimney pieces are shown from the published books of designs. The development of the staircase is reviewed and early stucco ceilings shown. We are told that there was little in the later buildings of the colonies which did not find its origin or counterpart in provincial England or other parts of Europe of the same day. "The ideal of the Colonial style remained always in conformity to current English usage. It is not the Colonial which constitutes America's really characteristic achievement in architecture. A truly American contribution to architectural style appeared only after the Revolution, and then it assumed a historical importance which has been little recognized.

What this was is shown in the section on Houses of the Early Republic. Two ideals were working in the evolution of the house design—the ideal of classical form, involving

* Charles Scribner's Sons, New York.

much more than the adoption of the Pompeian detail of the Adams; "its ultimate goals were the unity and abstract quality of classical ensembles, the temple and the rotunda." With this came the ideal of modern convenience, the plan to fit the life instead of the life being cramped into the plan. "In the interplay of these two lies the key to the evolution of the American home during the first sixty years of the Republic. So far as they were in conflict, the issue in America was less a reconciliation between them than a triumph, in all its absolutism, of the formal, classic ideal."

The political and cultural movements of the time are reviewed. Priority in the realization of classical revival is claimed for America; the Virginia capital of 1785 preceded the Madeleine of Paris by twenty-two years; the Bank of the United States (1819-26) came ten years before the National Monument at Edinburgh and the Walhalla at Regensburg. Of this new gospel Jefferson's was the voice crying in the wilderness, Bulfinch, L'Enfant and Dr. William Thornton the minor prophets. Men of professional training in architecture now appeared in America—Hoban, the Irishman; Hallet, the Frenchman; and Latrobe, the Englishman, and, not to be forgotten, Mills. Both McIntyre and McComb were gifted craftsmen whose practice tended to assume a professional character.

After reviewing various publications, materials, plans, stairs, and other details are discussed and notable examples of the work of these masters illustrated. The introduction of the elliptical room is traced with its wide adoption and popularity. Jefferson's designs with Palladio's originals are shown. Excellent types of the "temple" house are given from Savannah to Michigan, Georgia to New York. Bulfinch's blocks of city houses are included. The change from classical orders applied as ornaments to the full Grecian temple scheme with houses surrounded by columns, treatments of the Palladian windows, types of window trim, the development of the fan-light and of the veranda and portico, the curved stair and general interior detail are fully treated.

With its two hundred and seventy-odd illustrations (including over eighty plans), the work is rich in a wealth of novel and beautiful examples full of inspiration for modern work. It is, in fact, just the résumé of the whole subject that has been long wanted, and as it is the fruit of much research and a labor of love by a master hand it deserves careful reading.

DONALD MILLAR.

eighty-seven



**The Stairway
of Mission,
San José**

Among the interesting features of old Mission San José, near San Antonio, Texas, are the spiral stairway which leads to the lower loft and the ladders which reach from that level up

to the belfry. The little stair tower is tucked away back of the bell tower in the angle formed by the latter with the south wall of the church. Its construction is similar to that customarily found in stone stairways, but is unique in the fact that the steps are of wood instead of stone. They are cut from solid logs and are laid up with the outer ends embedded in the masonry of the walls, while the inner ends are so rounded as to form drums of a central shaft or newel.

The tower is six feet in diameter, the wall is twenty-four inches in thickness, the treads of the steps are fourteen inches wide at the wall and the central shaft is ten inches in diameter.

During the many years of neglect which so nearly destroyed the entire mission, this stairway fell to ruins but has been care-

fully restored within the past few years.

These steps lead to the tower loft where the ascent to the belfry is continued by means of ladders so primitive in form as to present a marked contrast to the skilled workmanship evident in the rest of the building. Each flight is a single hewn timber into which are chopped notches forming crude steps. The first ladder rests on the floor of the loft and leans against the wall beside a small platform which carries the second one. This reaches a floor on the roof level from which the third ladder leads to the belfry.

What could have prompted the priestly builders to substitute the wood blocks for stone in building the spiral stairway? Why should they choose the clumsy notched log instead of the lighter ladder? It certainly was not because of a scarcity of stone, and as one looks over the surrounding plain from the belfry he can scarcely imagine heavy timbers being so common as to be

used in preference to lighter stuff or as a substitute for stone. Whatever may be the reason for these curious examples of stair building, they remain as interesting illustrations of the methods employed by the pioneer builders on the frontiers of eighteenth century civilization.

I. T. FRARY.

**A Century of
Missouri Art.
By J. S.
Ankeney**

One is apt often to think of architecture and art development of the Middle West as a thing of sudden growth, born within the last forty years at most, but the beginning of art and

architecture of the settlers of Missouri dates from a period prior to that of the Revolutionary War.

J. S. Ankeney, in his first article in a series for the Missouri Historical Review of July, 1922, "A Century of Missouri Art," tells a very interesting story of the architecture of the state in which he was reared, and where he is now teaching art and painting in the University of Missouri.

The natural decorative designs of the Indian were lost to the settler except in the art of weaving. But the architecture began with the log house, the primitive architecture of settlers, whose prototypes were in Quebec or New Orleans.

The idea that the log house of the period was not attractive is absurd. The planning was of a necessity simple. The treatment of the roof and wall areas had an agreeable texture which was that of hewn shingle and log, and combined with a massive chimney of the local stone, made a very interesting dwelling. This resulted in a type of domestic architecture that was not unworthy of particularly intelligent folk who with courage and energy were developing and settling a new land. The craftsmen were ingenious, but withal direct and simple. They brought into this architecture ideas of racial tradition and communication with French art, and some of the fashionable taste for English provincial forms.

Professor Ankeney goes on to say that there had been a feeling toward the latter half of the eighteenth century that classic architecture itself was the very soul of later colonial development. The Greek and Roman temple forms were the prototypes on which some of the larger scale buildings of early Missouri were based.

Jefferson during his stay in France (1785-

eighty-eight



1789) had a small model made of the Maison Carrée at Nîmes with certain changes, and sent it to the authorities of Virginia to help them in building the new state capitol at Richmond. For what he termed a good example of "spherical architecture," he selected the Pantheon in Rome for the rotunda for the library of the University of Virginia.

"On the completion of the United States Capitol in 1820, its plan of a great central dome with balanced wings became a national type, more universally followed than any other for state capitols."

By 1830 the Missourian had many precedents on which to draw for inspiration for his public buildings. The planning and arrangement and many construction details reflect the knowledge and acquaintance of the local builder with the architecture of the East. The builder met the demand from his fund of general experience, which consisted largely of planning a central room, whose exterior had a porch and whose roof was supported by columns in the manner of the classical prototypes. This "parti" was used in planning churches and in some of the early residences.

Many of the churches of the state of this period were built with porticos, but the front gable was treated with a pediment and a belfry was placed just above it. The Presbyterian Church at Columbia, built in 1846, was of this type.

As the communities grew, and the prosperity of the people increased, spacious chambers and wide corridors were planned, and stately porticos, classic in form, were developed. Across the whole state, following the rich valley of the Missouri River, large commodious houses were constructed, some of which still stand.

Toward the close of the pre-Civil War period, only the early Italian Renaissance was used in design, and the house of General D. M. Frost, Washington Street, St. Louis, built in 1859, is an example. The High School, formerly at Fifteenth and Oliver Streets, St. Louis, is an example of the influence of Gothic architecture. It was designed by Geo. I. Barnett, who came to America in 1839, and who early settled in St. Louis and designed some residences and the Chamber of Commerce, in the accepted classic form.

The imitation of style has a great influence on the later development of a community, and Missouri was very fortunate in taking for her own the grand styles adopted by her sister states on the Eastern seaboard.

E. M. URBAND.

The Architects' Small House Service Bureau

The great housing shortage resulting from the cessation of building during the years of 1916, 1917 and 1918, the subsequent high cost of material, the uncertainty of values and markets, and the increasing ugliness of small homes due to cheap construction resulting from these conditions, were factors in creating the Architects' Small House Service Bureau organization. For a number of years architects throughout the United States have been endeavoring to solve the problem of the small house, to provide for the small house builder plans of substantial, artistic homes designed to eliminate waste without sacrificing home comforts, convenience and architectural features which lend to it individuality, distinctiveness and charm. But the cost of preparing plans and rendering service for the small house is relatively as great as that for larger dwellings, and the small house builder often considers the elimination of the architect's fee the first point of economy in his home building project.

In almost every field of endeavor, except architecture, ways and means have been evolved to serve the masses, and this is accomplished through quantity production and distribution. The logical conclusion of the architects interested in a service for small home builders was that through co-operation in the production of designs, and large production and large distribution of plans, they would be able to render their professional services at a fee within the means of all small home builders.

This idea was successfully worked out by a group of Minnesota architects who organized The Architects' Small House Service Bureau of Minnesota (now the Northwestern Division) and, upon obtaining the indorsement of the American Institute of Architects and the United States Department of Commerce, The Architects' Small House Service Bureau of the United States was incorporated. This body is purely executive, and has control of the policies governing the Bureau's work and shapes the national programs. Upon the zoning of the United States into thirteen regional divisions, architects of the various regions were urged to incorporate Divisional Bureaus to carry on the work of the Bureau in their territories.

The Colorado architects were the first to act. They organized The Mountain Division in July, 1921, and began immediately the

work of designing plans to be included in a book, "How to Plan, Finance and Build Your Home," which was published in April, 1922, and contains fifty-two distinctive designs for small homes ranging in size from three to six primary rooms. The book is designed to be of every assistance to the inexperienced home builder and contains chapters on Financing, Planning, Interior Decorating, etc. The book sells at \$2. Broadly speaking, the Bureau idea is not a money-making enterprise. The architects who support it receive less than 10 per cent. on their cash investment, and the surplus income of the Bureau is to be used to further this work to the best advantage of the small home builder.

DONALD O. WEESE.

**Prix
de Rome**

The American Academy in Rome announces its competitions for Fellowships in architecture, painting, sculpture and landscape architecture. The stipend of each Fellowship is \$1,000 a year

for three years, and residence and studio are provided free of charge at the Academy, with board at cost. All Fellows will have opportunity for extensive travel.

The awards of the Fellowships will be made after competitions, which are open to unmarried men who are citizens of the United States. Special attention is called to the fact that in painting and sculpture there will be no formal competitions involving the execution of prescribed subjects, as heretofore, but these Fellowships will be awarded on the basis of a thorough investigation of the artistic ability and personal qualifications

of the candidates. To this end, candidates are requested to submit examples of their work and such other evidence as will assist the jury in making the selection.

Entries will be received until March first. Any one interested should write for circular of information and application blank to Roscoe Guernsey, Executive Secretary, American Academy in Rome, 101 Park Avenue, New York City.

The judges of the contest in clock case design conducted by the Cloister Clock Corporation of Buffalo, N. Y., have announced the winning designs. The response to the announcement of the competition was so widespread that they had an opportunity of reviewing a great deal of work showing originality of conception and excellent technique in execution.

The prizes offered were for designs of an upright mantel clock case of wood, greater in height than breadth; designs of the same proportions in metal, and clock cases of wood greater in breadth at the base than in height.

The competition, it is hoped, will result in a renewed interest in a somewhat neglected form of decorative art.

The firm of Capelle & Troutman, architects, has dissolved partnership. Mr. Charles L. Troutman has taken over the interest of this firm and will continue business at the former address, 409-410 American Trust Building, Evansville, Indiana.

Leigh French, Jr., announces that he has moved his office from 597 Fifth Avenue, New York, to 17 East 49th Street.

ARCHITECTURAL RECORD

February 1923



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The Architectural Record

February, 1923

ENTRANCE DETAIL.
NÔTRE DAME ACADEMY, FENWAY, BOSTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

THE ARCHITECTURAL RECORD

VOLUME LIII



NUMBER 293

FEBRUARY, 1923

A SELECTION *from the* WORKS OF
MAGINNIS & WALSH Architects

By
Sylvester Baxter

AS significant as it is gratifying is the circumstance that today's renaissance of art in the Roman Catholic church should not only be finding its strongest impetus and widest development here in the United States, but that it practically had its origin with a few young American architects who, saturated with its high traditions, found opportunities to make practical application of their ideals in ways that have led to a cumulative following of the examples they set. The dearth of good art in the church through the greater part of the nineteenth century was painfully manifest the world over. It seems strange that in Europe, in the very shadow of past glories, the spirit should have so universally departed. Nearly everything new was either hopelessly mediocre or distressingly bad. Perhaps the only exception—and that would hardly be

termed new—was the completion of the cathedral at Cologne, due to the fortunate discovery of the original plans. The value of Beauty as a handmaiden to Faith had been quite ignored, if not forgotten.

Perhaps the absence of this vital influence over there beyond the Atlantic would in itself be sufficient to account for conditions prevalent here. But the impulse to new beginnings among us was lacking because of local circumstances that precluded it, due to the prevailing poverty of the Church almost everywhere, both pecuniarily and in the aesthetic sense. In the great tide of immigration that had been the chief factor in spreading the Church through the States, the masses had grown remote from association with the most of that which had worked so strongly for beauty in the history of their faith. States like Maryland and Louisiana were exceptions: they had

been settled by Roman Catholics dominant in their social standing: English in Maryland, French and Spanish in Louisiana. Of course in all large cities there were comparatively small minorities of cultivated Roman Catholics. Hence the church in their neighborhoods was likely to reflect their taste, more or less, in design and furnishing. Yet nearly everywhere in this country the architecture of the Roman faith was almost hopelessly bad—at the best, with rare exceptions, rising to the respectably mediocre.

Late in the nineteenth century changes that had imperceptibly been taking place all over the United States began to make themselves effective. Boston, for instance, the cradle of American Puritanism and Unitarianism, had become overwhelmingly Roman Catholic in population. At the same time social character had greatly changed. A broader distribution of wealth had taken place, universal opportunities for education had done much towards substituting cultivation and correspondingly higher standards of taste for their opposites. It became evident that these things were hereditary in no particular race or class, but were generally responsive to opportunity.

High school and college education, with which the younger generations in the Faith have extensively enjoyed the advantages of refining associations, have had their natural effect in spreading through many a parish a cultivated responsiveness to aesthetic influences. Like influences have been gradually at work among the clergy. The proportion of men of a broader education, with refined tastes in literature and art, has increased enormously. The permanent rector of a parish takes just pride in making his church as good as means will allow. And when one parish has made itself distinguished by a church notable for its good architectural character, a spirit of emulation will incite the rectors of other parishes to follow the example. This spirit is what mainly accounts for a phenomenal demand for the services of architects of high standing that has been

one of the most marked features in the Church since the beginning of the twentieth century. It also seems likely that the higher value laid upon the aesthetic element in worship has been a factor of no little importance in the recent growth of the Church in this country.

The demand for better architecture has happily been met by correspondingly high standards on the professional side. Formerly, with rare exceptions, almost the only architects who specialized in meeting the requirements of the Church were men as destitute of imagination as they were of talent. Their productions were hopelessly commonplace, at the best. The degrees of badness represented by such work had their equivalent in the Protestant parishes in the middle years of the nineteenth century: the horrors inflicted upon our smaller cities and our country towns in the shape of the "wooden Gothic," which unhappily altogether too numerous still disfigures many an otherwise presentable community.

In the selection of architects, as in many other things, quite the natural disposition is to give preference to those of the same faith. This, as we have seen, long resulted in inferior work, for the reason that not until near the end of the nineteenth century had more than a very few members of the Roman Catholic faith become architects in the artist sense of the word. Not a few liberal-minded clergymen, however, desirous of the best, have commissioned architects of other faiths who stood high in their profession to design their churches. But when at last social and cultural changes had to a most appreciable degree made both clergy and laity receptive to the finer aesthetic influences, the growth of competent architects within the Church had become so notable as to develop what became the widespread movement of today. Talented youths of the faith either entered architects' offices or took the architectural courses at the great technical institutions, and numbers of these young draughtsmen have set up for themselves with well merited reputations.

It was from three of these young draughtsmen, while yet they were in the



February, 1923

GENERAL VIEW.
NÔTRE DAME ACADEMY, FENWAY, BOSTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

The Architectural Record

offices of Boston architects, that this notable movement for good art in the Church received its first impulse. In the early nineties an appreciation of good civic architecture in Boston was immensely encouraged under the red-letter administration of Nathan Matthews as mayor, when Edmund M. Wheelwright was made City Architect. The school-houses and other public buildings designed by Mr. Wheelwright—later the architect

Matthew Sullivan. It chanced that the editor of a Church magazine published in Boston had asked Maginnis to write an article on church architecture in America. Maginnis consented on condition that he be given rein to say what he pleased. The editor agreed. The result was the printing of a scathing characterization of the artistic shortcomings of the churches of the faith here in the United States.

A few days after its publication a tele-



VIEW FROM THE CHESTNUT HILL RESERVOIR.
RECITATION BUILDING, BOSTON COLLEGE, NEWTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

of the great monumental bridge across the Charles River between Boston and Cambridge and the fine Memorial bridge across the Connecticut at Hartford—were examples of municipal architecture that were admired and followed all over the country.

The head draughtsman of the City Architect's office was Charles D. Maginnis; with him in the office was also another young man of unusual talent,

phone call from the editor came to Maginnis at the Boston City Hall: the pastor of the Parish of St. Patrick in Whitinsville, Massachusetts—a mill-town in Worcester County—wanted to see him as soon as possible. A meeting was arranged for and Maginnis was informed by the pastor that he was going to build a new church and he wanted the author of that article to design it. Naturally this first fruit of that criticism

was gratifying; it had been written with no intention of drawing business; the author's object had been simply the unselfish motive of stressing the fact that the aesthetic aspect of the Catholic form of worship was one of its most essential elements: of vital moment as a factor in bringing to the consciousness of the worshipper a sense of the spiritual through its expression in terms of the beauty and

to specialize in ecclesiastical art. It is worth recording that before accepting the commission young Maginnis with becoming modesty asked Father O'Reilly how he could trust him as competent to make a worthy design for his church when all that he had done was to characterize existing shortcomings. Was there any assurance that with his inexperience in ecclesiastical design he could do anything



RECITATION BUILDING, BOSTON COLLEGE, NEWTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

the harmonious order of our God-made world.

The young draughtsmen at the Boston City Hall had been engaged wholly upon civic problems; Mr. Wheelwright had taken pains to secure the most talented subordinates he could find; so to the work of Maginnis and his associates was due a measure of credit for the national reputation deservedly achieved by Boston's City Architect for his brilliant work. But this first commission proved the determining factor in its recipient's decision

better himself? The pastor's reply was to the effect that the writer of that article had shown that he knew so thoroughly what he was talking about that he felt no doubt as to his constructive talent. St. Patrick's in Whitinsville thus shares with another work of about the same date the honor of standing as the pioneer landmark in the present remarkable revival in Roman Catholic architecture here in the United States.

While Charles D. Maginnis was in the City Architect's office an uncommonly



CHAPEL FOR BOSTON COLLEGE, NEWTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

gifted friend of his, Timothy F. Walsh, was giving excellent service as draughtsman in the Boston firm of Peabody & Stearns. Contemporary with the St. Patrick's of Maginnis at Whitinsville, a Carmelite convent of distinctive beauty,

designed by Walsh, had been built in the Roxbury section of Boston. Its historical importance would give it place among the accompanying illustrations, were its position on the street not such as to prevent securing a worthy photograph.



GYMNASIUM FOR BOSTON COLLEGE, UNIVERSITY HEIGHTS, NEWTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

St. Patrick's was designed in the Gothic of Lombardy, a style in which a large proportion of the architects' subsequent work has been designed.

Although under Wheelwright the City Architect's department had for the first time achieved a great reputation for its excellent constructive character and high efficiency, Mr. Wheelwright himself, at the end of his term of office, recom-

savings, a cost not to be counted.

They spent the summer delightfully, with profit and instruction, in an architectural pilgrimage. On their return they were joined by their friend Walsh in the new firm of Maginnis, Walsh & Sullivan. Later it was Maginnis & Walsh, Sullivan withdrawing and setting up for himself with a well earned reputation.

Based upon a high proficiency in



ST. PATRICK'S CHURCH, WHITINSVILLE, MASSACHUSETTS.

Maginnis, Walsh & Sullivan, Architects.

mended its abolition. This for the reason that, in the long run, more acceptable results could be looked for by apportioning the city's work among architects of standing. So, with the incoming of the new Mayor, the department went out of existence, leaving not a few talented young draughtsmen to look for new jobs.

Young Maginnis and Sullivan decided to signalize their retirement from the city's service by taking a summer holiday in realizing their dream of a trip to Europe at the cost of their moderate

Church history and the requirements of the ritual, the thorough training and the diversified nature of their practice have given Maginnis & Walsh a command of their art which still could hardly have lifted their works above the uninspired levels but for an intrinsic artistry. In comparison with merely mechanical or engineering developments this firm stands as the poet compares with the mere rhymester, the creative composer with the routine musician. With the facility of expressing themselves in almost any of

the current styles as circumstances may require, in their ecclesiastical work they give preference about equally to the Byzantine of Lombardy and to the Gothic, as best adapted to the aesthetic demands of the Roman Catholic ritual. Their activity has by no means been given exclusively to ecclesiastical undertakings. Their fundamental training assured them an admirable proficiency in civic

appreciation of things well done by their fellows. Among the gratifying instances of this trait that I have been witness to I recall one evening a few years since, at the opening reception of an exhibition of the Boston Architectural Club. With three of the foremost resident architects I was standing near some fine perspectives of the beautiful Academy of Notre Dame on the Fenway,



ST. JOHN'S CHURCH, NORTH CAMBRIDGE, MASSACHUSETTS.
Maginnis, Walsh & Sullivan, Architects.

and commercial work. For instance, the handsome educational group in Boston's Fenway district, consisting of the Girls' Normal and Latin Schools, was in rather novel fashion entrusted to three Boston firms of high standing: Peabody & Stearns, Maginnis & Walsh, Coolidge & Carlson. An important public schoolhouse in New York City stands among the recent work of Maginnis & Walsh.

I have found architects, of all artistic practitioners, the freest from professional jealousy and the most generous in their

designed in an unconventional but scholarly Gothic. Viewing this work admiringly one of them turned to his companions with the words: "Well, I think there can be no question that Maginnis & Walsh must now be ranked as our foremost Boston architects." The agreement of the others was as hearty as it was unanimous. The imaginative quality of their work, developed from their scholarly handling of their problems while with due economy making the best of the materials at command, is what brought out

this handsome recognition. The charm of the Nôtre Dame design, its noble mass rising in picturesque silhouette above the naturalistic landscape of the Fenway, seemed spontaneously to suggest this

buildings. The effect aimed at was to develop out of unsightly mud-flats a characteristic New England marsh and meadow scene that would give the impression of having with its meandering creek re-



FAÇADE—ST. CATHERINE'S CHURCH, SOMERVILLE, MASSACHUSETTS.
Maginnis & Walsh, Architects.

tribute. It had contributed a new element to the monumental framework of Boston's great parkway, of which its author, the senior Olmsted, had said a generation ago that the intentions of the design would not be realized until its bordering roads had been lined with

mained in a state of nature while the great city grew up about it. So now we have a remarkable frame of monumental architecture, harmonious in its diversity.

Strongly akin to Nôtre Dame is the design of the architects for Boston College, a scholastic institution of the



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ST. CATHERINE'S CHURCH, SOMERVILLE, MASSACHUSETTS.
Maginnis & Walsh, Architects.

Jesuit order lately removed from the center of the city out to the Chestnut Hill section of the suburban city of Newton. Conspicuously overlooking the lakelike expanse of the Chestnut Hill reservoir of the metropolitan water supply, the buildings already erected make the beginning of a magnificent monumental group. The site comprises many hillside acres, both sloping and level, and

trated in the present issue along with other notable examples of the work of this firm, stands in a quiet neighborhood on the summit of Spring Hill in Somerville, the second largest suburban city in Greater Boston. It is one of the most beautiful churches in America. One of the most distinguished architects of Boston, Mr. Ralph Adam Cram, was so impressed with its charm that he selected it to illustrate



HIGH ALTAR—ST. CATHERINE'S CHURCH, SOMERVILLE, MASSACHUSETTS.
Maginnis & Walsh, Architects.

many buildings are to be added gradually.

From an extensive New England clientele the reputation of the firm has spread from coast to coast, well over the United States. The projected National Shrine of the Immaculate Conception, easily the most important edifice for the Roman Catholic faith in the United States, was illustrated in *THE ARCHITECTURAL RECORD* for July, 1922.

The Church of St. Catherine, illus-

an article on architecture in America that he had been asked to write for the forthcoming new edition of the *Encyclopædia Britannica*. Spring Hill is a slightly location for a monumental building: one of the ten elevations that caused John Winthrop, the first governor of the Colony of Massachusetts Bay, to give the name, Ten Hill Farm, to his extensive holding in the section of old Charlestown now included in Somerville and Medford.

The church, facing southward, looks down into the Charles River valley and over Cambridge, spreading around the huge Victorian Gothic tower of Memorial Hall of Harvard University—standing cathedral-like in the distance. If the tall campanile that figures in the original design is ever erected, St. Catherine's will be one of the notable metropolitan landmarks for Boston. The campanile, however, is by no means an essential feature of the design.

The style is the Lombardy Byzantine of northern Italy that from the start has been a favorite medium for the architects of St. Catherine's as, perhaps equally with the Gothic, offering a perfect vehicle for religious expression. The exterior is of a brick of soft and warm grayish tone, immensely superior to the ordinary yellowish buff which, from its employment in showily cheap apartments, tenements and business blocks, has achieved unpleasant associations in the public eye. The atmospheric harmony of this warm grayish tone makes the material an admirable vehicle for conveying the qualities both of richness and delicacy of which the Lombardy style is so highly capable. Particularly effective are the fine drawn lines of shadow that seem etched into the façade by the beautifully designed alternating projections in the brickwork.

The trimmings of plain white marble stand in harmonious contrast with the pleasing surfaces of the brick, particularly in the sculpturesque main portal, which gives a terrace-like platform between two wide flights of steps at the side, affording opportunity for the admirable entrance to the basement directly below the main entrance.

The basement of the average church, whether Roman Catholic or Protestant, is planned to meet the needs of Sunday school, church offices, parish meetings, and the like, with little regard for the religious character of such occupation. The subdivisions are treated about as they would be in a dwelling or office-building. In the case of a Roman Catholic church under construction it is customary to finish the basement entirely before work upon the body of the structure is under-

taken, using it as the congregation's regular place of worship until the main part has been completed. This is often a matter of years. Meanwhile the lack of ecclesiastical surroundings remains unpleasantly manifest.

In the case of St. Catherine's, however, this lack was never in evidence. The church was about nine years under construction. Work progressed piece by piece according as the funds for building became available. But the finish in every detail was thorough as it went along. The final result was an absolutely completed work; nothing scrimped or left superficially treated, to be done over again later on. Father O'Brien had the fortune to inherit from his father, the Hon. Hugh O'Brien, once a highly respected mayor of Boston, a considerable fortune. And it has pleased the good pastor to devote the better part of this to the building of St. Catherine's, thereby making it, in part, a worthy memorial to the parent, in whose honor one of the two beautiful side-chapels has been dedicated to St. Hugh.

But to return to the basement. The architects have successfully dealt with the difficult problem by very appropriately treating it as a crypt, with a low-arched vaulted ceiling supported by massive piers. The congregation thus found itself at the very outset housed in an appropriately religious environment, conducive to a worshipful mood. Owing to the pews, the photographs of this interior do not adequately convey a true idea of its impressive embodiment of the crypt idea, since the space between the pews and the vaulted ceiling, being so short, abbreviates by so much the apparent distance from floor to ceiling. Pews are, of course, a necessity in our American churches, since our congregations could not easily adapt themselves to the custom so universal in the Roman Catholic churches of Continental Europe, standing or kneeling, but never seated, in their worship. Even in the loftiest of interiors the pews tend to diminish the architectural effect. The writer recalls how heightened was the impressiveness of the great Mexican interiors by the absence



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CARMELITE CONVENT, SANTA CLARA, CALIFORNIA
Maginnis & Walsh, Architects.

February, 1923



The Architectural Record

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HIGH ALTAR—CARMELITE CONVENT, SANTA CLARA, CALIFORNIA.
Maginnis & Walsh, Architects.



of pews and the consequently unbroken floor-levels. In working up his "Spanish-Colonial Architecture in Mexico" he found but one church furnished with pews; that of La Valenciana, the mining-town near Guanajuato, built to serve one of the world's greatest silver mines. A notable feature of this basement is the baptistry, the marble font in the center of it capped with a handsomely carved

great apse stood glorious with light; the half-dome of its ceiling filled with richly colored worshipping angels on a golden ground. From one side only the light from concealed incandescents streamed precisely as sunlight streams through hidden windows, flooding the apse and bringing out gloriously the slender columns of the tall pavilion of the high altar, of Mexican onyx throughout, ris-



EXTERIOR PERSPECTIVE OF THE LOS ANGELES CATHEDRAL.

Maginnis & Walsh, Architects.

cover, dome-shaped, and hollowed from a single piece of wood to a shell-like lightness.

Standing in the vestibule that occupies the space beneath the organ-loft, one is immediately impressed by the nobility of the perfectly proportioned interior, with its high, barrel-arched nave and beautiful aisles. The day in late October was somewhat overcast; a subdued luminosity flowed through the fine windows of stained glass, filling the place with a sort of dusk-like solemnity of dim shadows that enhanced the religious atmosphere. Terminating the nave, the

ing in the center. This artificial lighting from one side is a feature of the daylight service. Beyond the altar the curve of the apse is followed by an exedra with columns of gray and white Italian marble whose silvery tone contrasts effectively with the strongly golden quality of the accented altar-pavilion at the axis.

These exedra columns have a noteworthy origin, showing the economy of resources that has produced this superb interior. They were turned from the cores of the great columns of the same material supporting the arch of the nave and crowned with Romanesque capitals



SULPICIAN SEMINARY, WASHINGTON, D. C.
Maginnis & Walsh, Architects.



CHAPEL FOR CONVENT OF THE RETREAT OF THE CENACLE, NEWPORT, RHODE ISLAND.
Maginnis & Walsh, Architects.

enriched with gold. These great columns, thus hollowed out, were cut in longitudinal halves to enclose cores of structural steel—the lines of the halving made invisible by the subsequent polishing.

The impression made by this interior is unspeakably glorious. It seems to impart a sense of the glory of God's creation by inducing a sensitiveness to the creative artistry that has wrought this marvel of human handiwork out of such imaginative resources.

Words like splendor, superbness, mag-

nificence, occur to the beholder. But they straightway seem inept for conveying the impression made by the high beauty of the place. The effect is colorful in its warm atmospheric purity; there is nothing to suggest ostentation or showiness in its sense of richness. In the blending of color notes produced by the stained-glass luminosity pervading the interior, with high-light reflections from the polished columns of gray and white marble, the hues of native stone of walls and vaulted ceiling delicately touched in soft-toned color patterns, the gold-



OUR LADY OF LOURDES SCHOOL, JAMAICA PLAIN, MASSACHUSETTS.
Maginnis & Walsh, Architects.



ST. CATHERINE'S CHURCH, NORWOOD, MASSACHUSETTS.
Maginnis & Walsh, Architects.

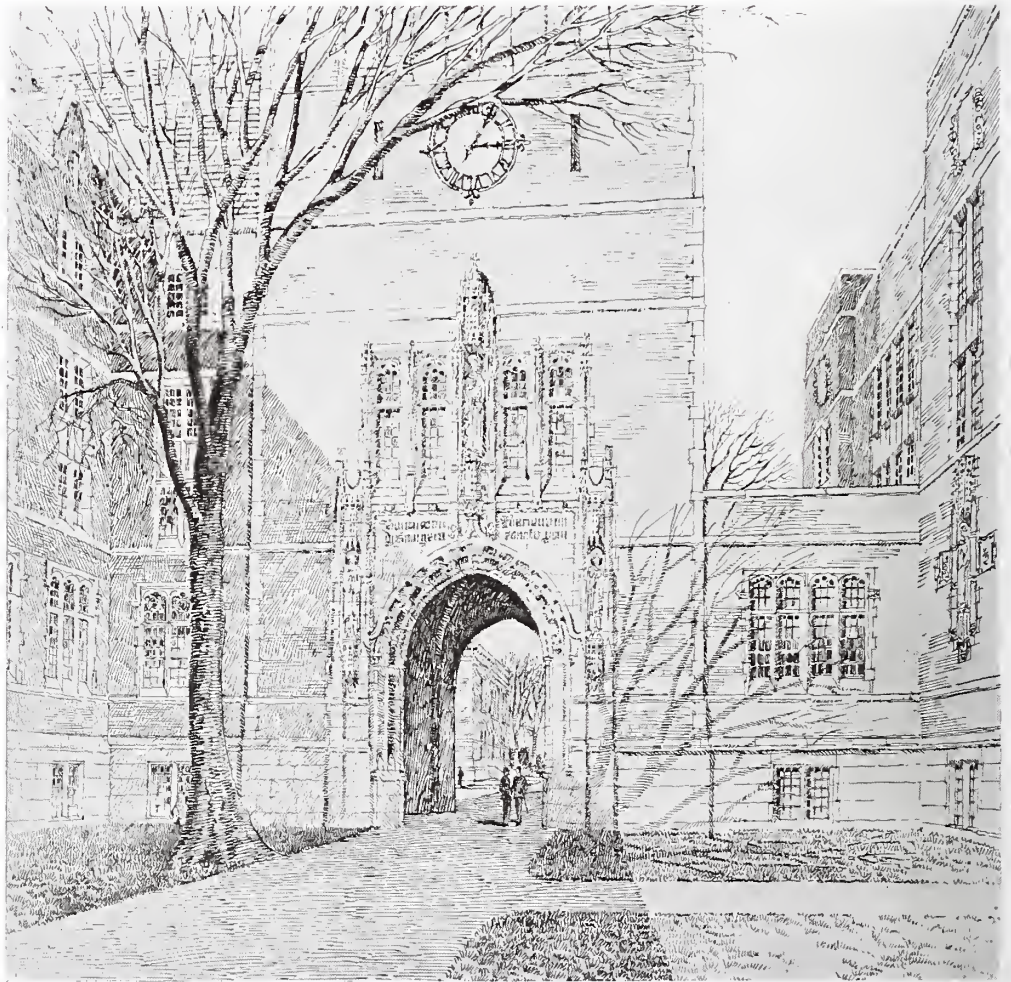


ST. EDWARD'S CHURCH, BROCKTON, MASSACHUSETTS.
Maginnis & Walsh, Architects.

Design for St. Thomas College St. Paul, Minnesota.
Maginnis and Walsh Architects Boston, Massachusetts.



DESIGN FOR ST. THOMAS COLLEGE, ST. PAUL, MINNESOTA.
Maginnis & Walsh, Architects.





The Architectural Record

ALTAR CHAPEL—RECITATION BUILDING, BOSTON COLLEGE,
NEWTON, MASSACHUSETTS.

Maginnis & Walsh, Architects.



February, 1923

HIGH ALTAR—ST. EDWARD'S CHURCH,
BROCKTON, MASSACHUSETTS.

accented Byzantine capitals, the fine carving of wood, the marble reliefs—in all this there is a sort of golden tonality, restful and satisfying as of calm and reposefulness; an assuring resonance like organ music and deep bell tones.

One marks the perfection of architectural detail, never intrusive, but quietly leading the eye from one feature to another, all wrought for harmonious completion; the stations of the Cross in low-relief marble, the carving of the pews,

seems to make it akin to the ideal heads of Elihu Vedder.

The exceeding beauty of the whole decorative scheme for this masterly interior sets a high example whose standard deserves a wide following. I could not help contrasting this work, in which not a feature appears without the sense of a reverent touch with an artist's thought behind it, with certain things in my memory of Mexico that meant a tragedy of art. On my last visit I found that



MONASTERY FOR THE CHRISTIAN BROTHERS OF IRELAND, POUGHKEEPSIE, NEW YORK.
Maginnis & Walsh, Architects.

the pulpit with the finely incised names of the young men of the parish who served in the World War, the mosaic-work in the onyx of the high altar, the wood-carvings in low relief in the Lady chapel and the two side chapels of St. Catherine and St. Hugh. These reliefs are the work of that consummate artist in wood, Kirchmayer, one of the wood-carver guild at Oberammergau, and once an actor in the famous Passion play. It was some years before the war that Kirchmayer made his home in Boston, where he has lived ever since. Of uncommon beauty is his large head of St. Catherine, of a quality that somehow

the interiors of certain fine great churches—notably the cathedrals of Zacatecas and of Morelia and about everything at San Luis Potosi—had been transformed in aspect. Their time-mellowed quality had vanished. They had been freshened up, made spick-and-span, robbed of all their old interest by innovating hands. Only ignorance of the nature of this sin against the beautiful that in such places means godliness, could avert from what was done the stigma of sacrilege. The Cathedral of Morelia had once been superbly decorated and furnished. Here is what I wrote of it in my Spanish Colonial:

"In 1858 silver treasure in the shape

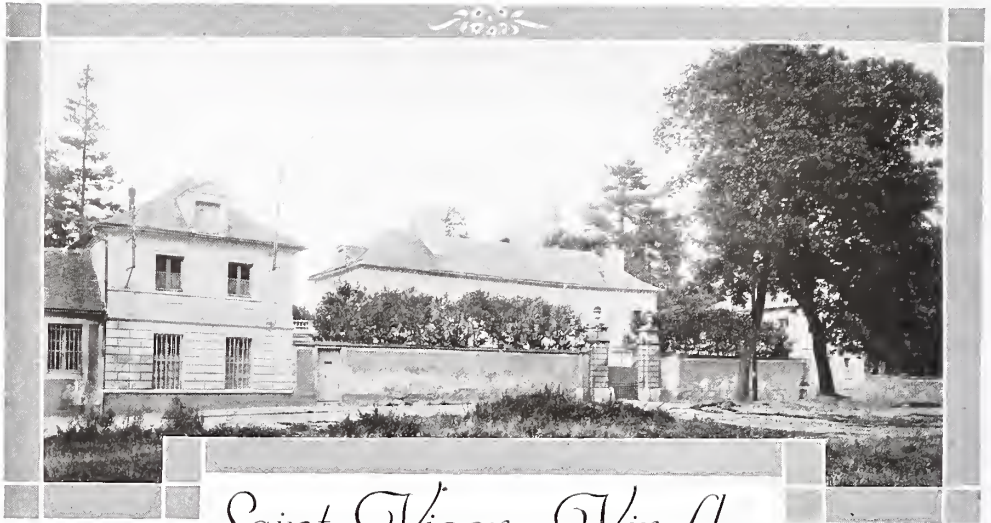
of railings, vessels, images and candle-sticks, with a bullion value of \$400,000 outside of the worth imparted by artistic quality, was confiscated by the national government. Very recently the interior was elaborately redecorated in modern style. Since this was in substitution for a tasteless redecoration perpetrated in 1880 it is pardonable; for, unlike the work at Zacatecas, San Luis Potosi and Mexico, it is agreeable in tone and general quality of design. The unavoidable effect of newness, however, is unpleasant, and one deplores the loss of the mellow quality of age and the rich old ornament whose absence leaves an effect of bareness."

The following, written about San Luis Potosi, applies equally to what was done with the Zacatecas Cathedral: "Until very recently there were several remarkably attractive church interiors, but it now looks as if some hotel and church-decorating company from 'the States' had taken a contract to go through all the churches of the city and put them in spick-and-span condition after the latest modern fashion, with diaper-work, etc., tormenting every bit of surface à la Fifth

avenue, and relegating all the old mural paintings and altar-pieces to the lumber-rooms. The Cathedral and several other churches have been served in this style, and the interior of Carmen—which had been celebrated for some fine work by Tresguerras—was undergoing a similar fate at the time of my visit."

Of how many churches here in the States might not like things be said? With the radical difference, of course, that they never were good. Fortunately the other sort, of which St. Catherine's stands a supreme example, is now multiplying in gratifying fashion. Yet it should not be forgotten that when we have once achieved a good thing the problem is to keep it good.

Before leaving St. Catherine's—most reluctantly—attention should be called to a feature that strikes a harmonious chord as we first glimpse the façade; the admirable piece of gardening at the entrance—in its quiet beauty so well in keeping with the architecture. Simply two cypress-like junipers lifting their spire-like forms out of a mass of Japanese-like dwarf pines, a promise of eternal power and peace.



Saint Vigor, Viroflay *Seine - et - Oise* *by*

*Harold Donaldson Eberlein
 & Leigh Hill French, Jr. —*

SAINT VIGOR, at Viroflay, near Versailles, is a particularly interesting example of those lesser houses of the French Court that were built during the seventeenth and eighteenth centuries to afford their owners establishments of domestic privacy and comforts while in residence to fulfill their official duties near the royal presence. These houses have all the urbanity of character we should naturally expect when we consider the quality and manners of their occupants, and yet they are small enough to possess an intimate domestic charm that must have been doubly grateful by its contrast with all the exacting formality inseparably incident to court etiquette.

Saint Vigor is but a modest-sized place, although it is so contrived that it conveys the impression of being a far more pretentious establishment than it is in reality. The south front of the house is separated from the road by only a shallow forecourt while the grounds extend backward from the north front. The central pavilion is

flanked by two detached wings which extend forward to the road and bound the forecourt east and west. On the south, the forecourt is enclosed by the garden wall, high enough to ensure complete privacy, as is customary in arranging the approach to French houses.

The two flanking wings, though actually separate structures, are attached to the central pavilion by arcades. These are merely screens through which one passes to the gardens beyond, but they complete the enclosure of the forecourt and tie the composition together, affording an agreeable sense of continuity. In the western wing are the kitchens, scullery and servants' quarters, while the eastern wing is arranged for the accommodation of guests and has its own independent little kitchen, dining-room and sitting-room. Behind the western or kitchen wing are the stables and vegetable gardens.

Like so many houses in the vicinity of Versailles, Saint Vigor is built of coarse native limestone rubble and thickly coated

with a jacket of light, smooth stucco, a medium the seventeenth and eighteenth century French builders found very manageable for mouldings and almost every other item of exterior trim. The stucco is protected and, at the same time, the structure is endued with an air of complete suavity by a coat of cream-coloured

paint. This practice of painting the stucco is common and there is much to be said in its favour on both practical and aesthetic grounds. The shutters are painted a dark green. Except for the paths, paved with stone blocks about six inches square, the forecourt is strewn with sand and gravel.



GATEWAY—SAINT VIGOR, VIROFLAY, SEINE-ET-OISE

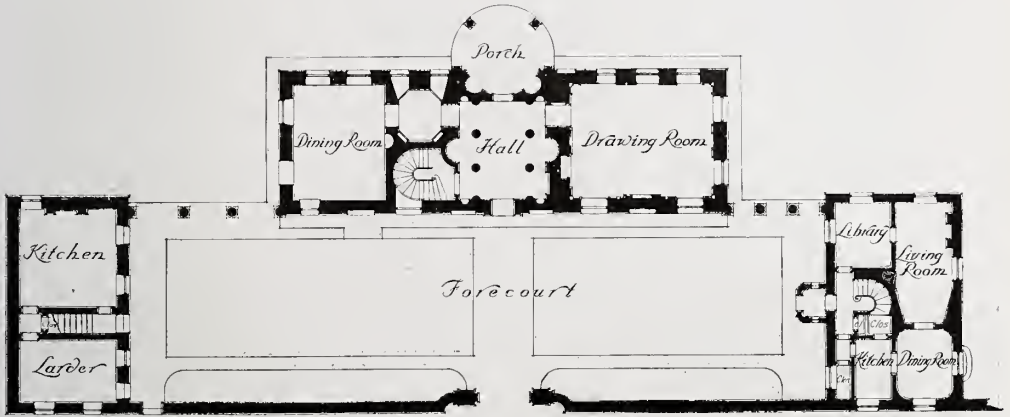


The Architectural Record

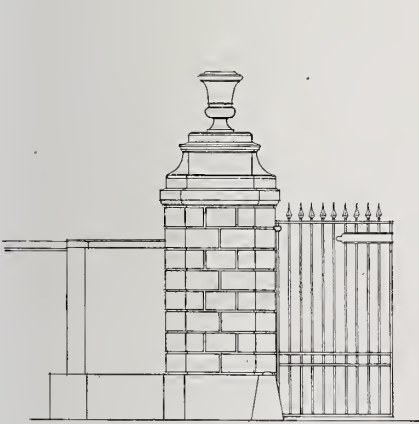
West Pavilion and Colonade.
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE

February, 1923

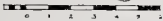
Garden



Plan of Ground Floor



- Gateway -



Entrance Doorway -



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February, 1923

Details of Gateway and Entrance Doorway.
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE.



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GATEWAY AND FORECOURT—SAINT VIGOR, VIROFLAY, SEINE-ET-OISE.



The Architectural Record

(East Pavilion)

SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



(Forecourt looking west)

February, 1923



The Architectural Record

February, 1923

HOUSEDOOR—SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



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HOUSEDOR—SAINT VIGOR, VIROFLAY, SEINE-ET-OISE

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The Architectural Record

February, 1923

South Front and Forecourt, looking east
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



The Architectural Record

February, 1923

Forecourt and East Pavilion
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



The Architectural Record

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Colonnade and East Pavilion
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



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February, 1923.

Doorway, East Pavilion
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



The Architectural Record

February, 1923

North Door
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



The Architectural Record

North Front
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE

February, 1923



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February, 1923

Staircase Detail
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE



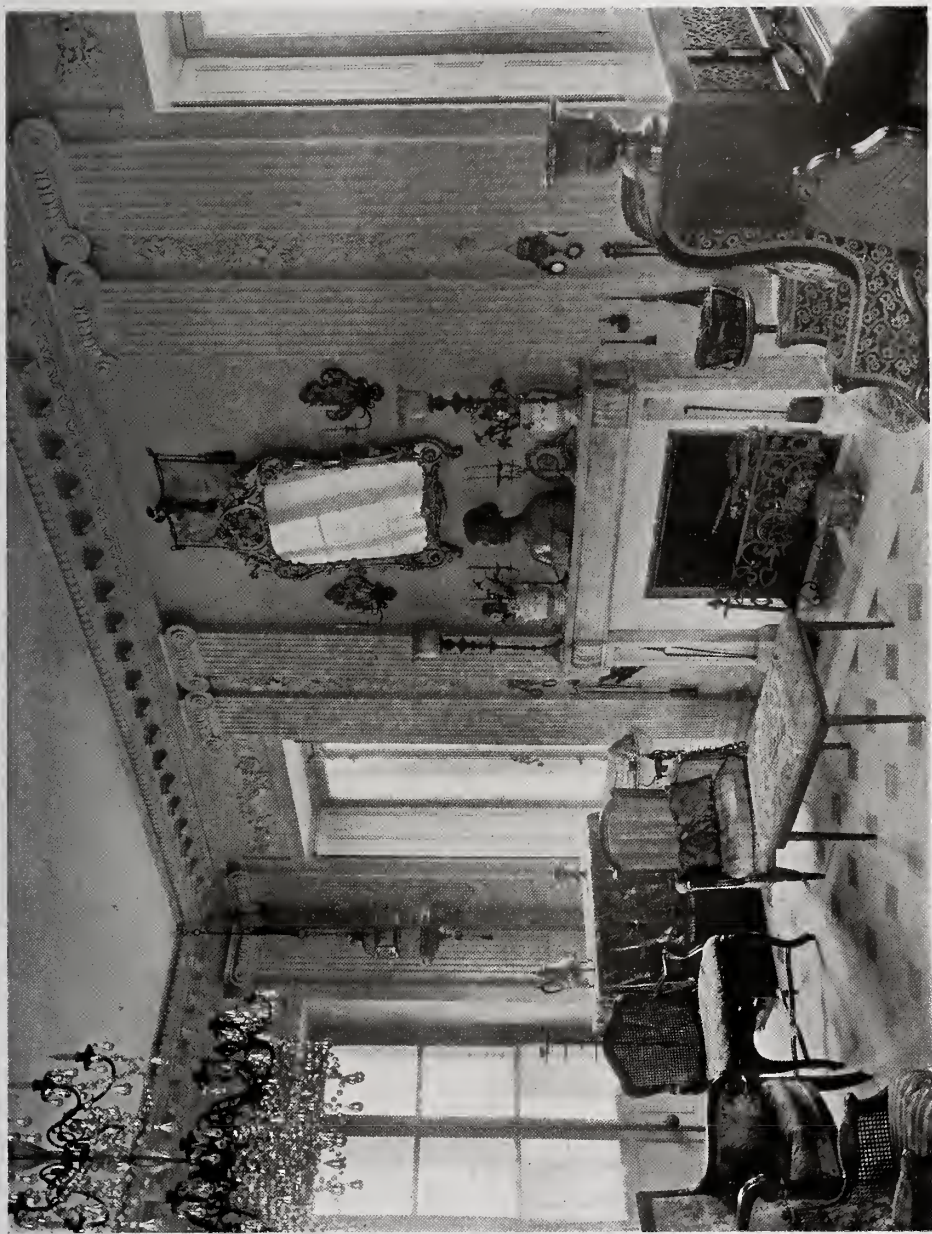
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Central Hall and Salon Door
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE
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Fireplace in Salon
SAINT VIGOR, VIROFLAY, SEINE-ET-OISE
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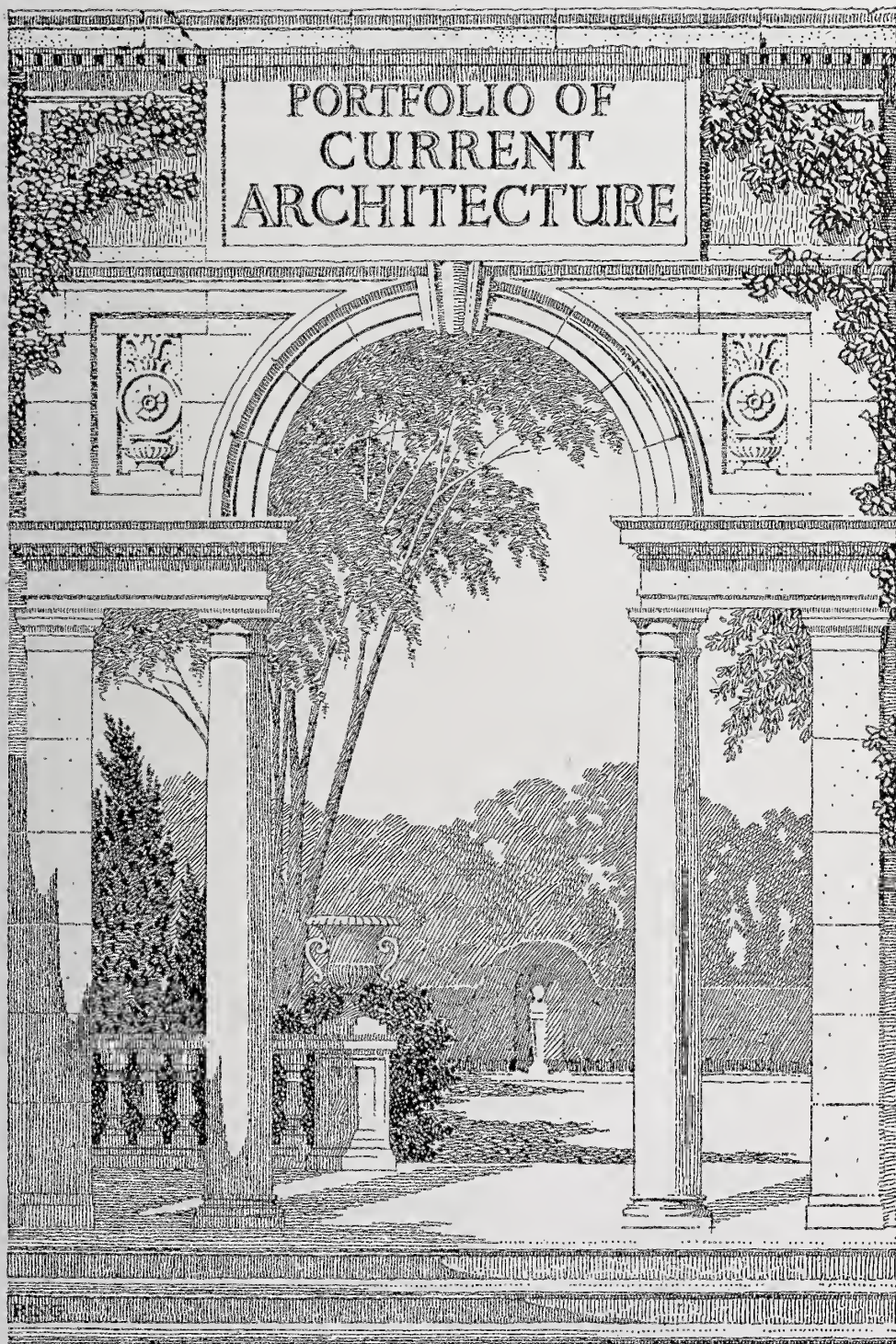


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SALON—SAINT VIGOR, VIROFLAY, SEINE-ET-OISE

February, 1923







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THE MISSES MASTERS' SCHOOL, DOBBS FERRY, NEW YORK
Cram and Ferguson, Architects.

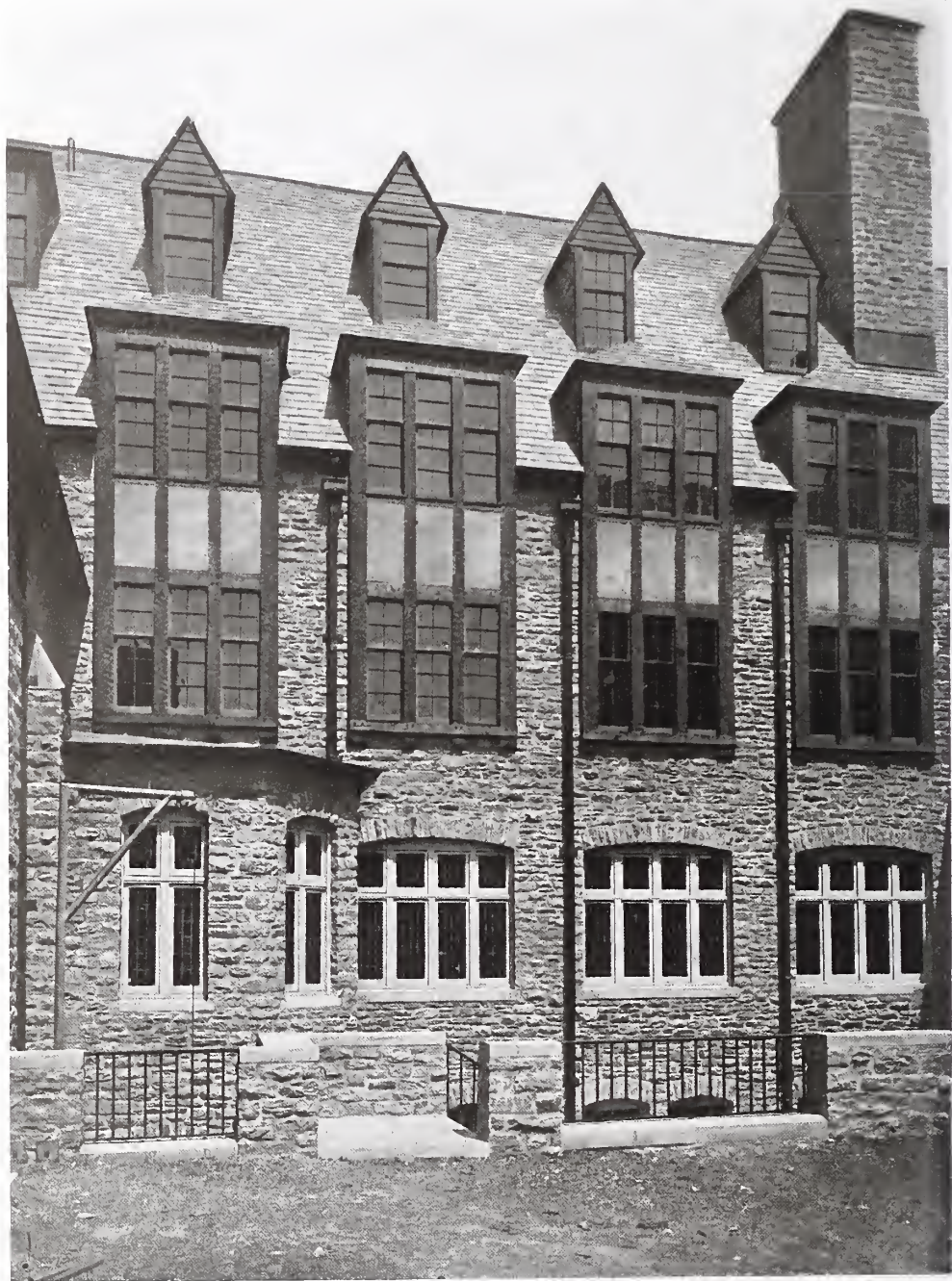
February, 1923



February, 1923

THE MISSES MASTERS' SCHOOL, DOBBS FERRY, NEW YORK.
Cram and Ferguson, Architects.

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THE MISSES MASTERS' SCHOOL, DOBBS FERRY, NEW YORK.
Cram and Ferguson, Architects.

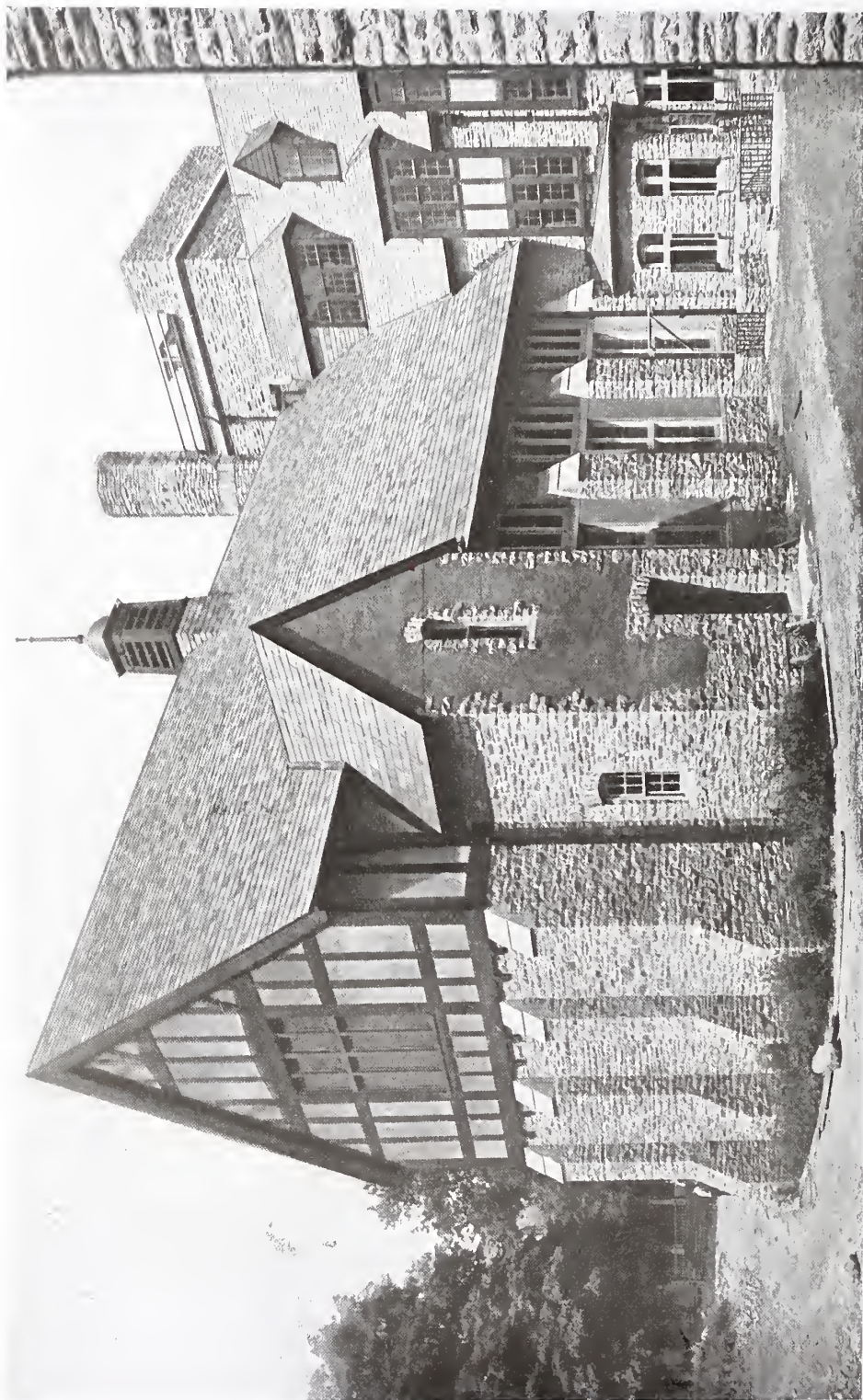


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THE MISSES MASTERS' SCHOOL, DOBBS FERRY, NEW YORK.
Cram and Ferguson, Architects.

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THE MISSES MASTERS' SCHOOL, DOBBS FERRY, NEW YORK
Cram and Ferguson, Architects.

February, 1923



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Library.

THE MISSES MASTERS' SCHOOL, DOBBS FERRY, NEW YORK.
Cram and Ferguson, Architects.

February, 1923



February, 1923

HOUSE AT EASTHAMPTON, LONG ISLAND.
F. Burrall Hoffman, Jr., Architect.

The Architectural Record



The Architectural Record

MADISON AVENUE BRANCH.
UNITED STATES MORTGAGE & TRUST COMPANY, NEW YORK CITY.
Henry Otis Chapman, Architect.

February, 1923



The Architectural Record

February, 1923

MADISON AVENUE BRANCH.

UNITED STATES MORTGAGE & TRUST COMPANY, NEW YORK CITY.

Henry Otis Chapman, Architect.



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February, 1923

MADISON AVENUE BRANCH.
UNITED STATES MORTGAGE & TRUST COMPANY, NEW YORK CITY.
Henry Otis Chapman, Architect.



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February, 1923

BANKING ROOM—MADISON AVENUE BRANCH.
UNITED STATES MORTGAGE & TRUST COMPANY, NEW YORK CITY.
Henry Otis Chapman, Architect.



The Architectural Record

February, 1923

RESIDENCE OF E. F. MAURICE, ESQ., GLEN RIDGE, NEW JERSEY.
Wilder and White, Architects.



The Architectural Record

RESIDENCE OF ALEXANDER BRUNBERG, ESQ., WHITE PLAINS, NEW YORK.
Alexander Brunberg, Architect.

February, 1923



The Architectural Record

RESIDENCE OF MORGAN COLT, ESQ., NEW HOPE, PENNSYLVANIA.
Morgan Colt, Architect.

February, 1923



ROADWAY.



The CHICAGO TRIBUNE COMPETITION

By Louis H. Sullivan

SOME seventy years ago, a philosopher, in the course of his studies of the Ego, separated men into two classes, distinct, yet reciprocally related, to wit: Masters of Ideas, and those governed by ideas. It was upon ideas as powers for good or ill that he laid the heavy hand; upon ideas as a living force obedient to the mastery of vision, springing forth from imagination's depths, from the inexhaustible reservoir of instinct.

Ego, considered solely as free spirit, stands out visibly as Master of Ideas. Ego, examined as a spirit benumbed through lack of action, hence inert and unfree, becomes dim of vision and renounces its will. It thus becomes the slave of imposed ideas whose validity it assumes it has not the strength to test, even were the idea of testing to arise. Hence, in timidity, it evokes the negative idea of Authority as a welcome substitute for its declining volition.

Masters of ideas are masters of courage; the free will of adventure is in them. They stride where others creep. The pride of action is in them. They explore, they test, they seek realities to meet them face to face—knowing well that realities and illusions exist commingled within and without, but also knowing well that Ego is its own. Hence they walk erect and fearless in the open, with that certitude which vision brings—while slaves are slaves by choice. They seek shelter in the *shadows* of ideas.

Ever such were the great free spirits of the past, and such are those of our own day.

Masters of ideas of the past and now, frequently have sought and seek dominion, and have reached it because the idea of dominion coincides precisely with the idea of submission. Other masters of ideas then and now, mostly those of immense compassion, have been and still are crucified by those so long in the dark that

the idea of spiritual freedom is abhorrent.

A consciousness is now growing and widely spreading in our modern world of thought, among masters of truly great ideas, that unless we become free spirits casting off the cruel, and awakening to the constructive power of beneficence, we shall vanish in decay and self destruction.

The simple world idea, now in process of becoming, in the hearts of men, is the idea of freedom from the domination of feudal ideas. Is there a power that can stop this becoming? There is not.

The eyelids of the world are slowly, surely lifting. The vision of the world of men is slowly, surely clearing. A world-idea is sprouting from its seed in the rich soil of world-sorrow. Beneath the surface of things as they are, everywhere it is germinating, unconsciously with the many, consciously with the few.

The old idea that man must ever remain the victim of Fate, will fade as fear fades. The new idea that man may shape his destiny will appear in its place, in a dissolving scene of the world-drama, as Democracy arises through the humus of the age-long feudal idea. For Democracy would remain, as now it is, a senseless word, a vacant shell, a futile sentimentalism, a mere fetish, did it not carry in its heart the loftiest of optimistic aspirations, wholly warranted, spite of all appearance to the contrary, and grasp the mastery of ideas wholly beneficent in power to create a world of joy devoid of fear.

The world is growing more compact every day, and every day the day is shortening, while the fleeting hour becomes thereby so much the fuller. The cold rigidity of frontiers is melting away, unnoted by the blind—every day the world becomes increasingly mobile, every day there is a silent interchange, every day communication is more fleet, and humanity, in response, more fluent.

Slowly day by day, with enormous and gathering momentum, the hearts of the world draw together. The process is silent and gentle as the dewfall. There are those who see this; there are those who do not. There are those who see in the lightnings and the raging storms of the feudal idea, reaching now the climacteric of its supreme mania for dominion, the symbol of self-destruction of a race gone wholly mad. But that is not so. The masters of the feudal idea alone have gone mad with hate; the multitudes are sound. They have lost a pathetic faith in the feudal concept of self-preservation which has wooed and betrayed them. They are moving somnambulistically now, upwards towards a faith that is new and real, a constructive idea, common to all, because springing from the hearts of all, of which all shall be masters, and about which shall form for the first time beneath the sun, a sane hope and faith in Life, a faith in Man—an idea which shall banish fear and exalt courage to its seat of power.

This idea will become the luminous, the central idea of all mankind because it is the offspring of that which is deepest down in all. It is and will continue as long as life lasts in the race, the shining symbol of man's resurrection from the dead past, of man's faith in himself and his power to create anew.

There are those who will decry this hope as they view in despair a world writhing in the depths of pessimism, of mendacity and intrigue. Yet are they those who are without faith in mankind, without faith in themselves. For this is the modern affirmation: Man is not born in sin, but in glory.

All of this has sharply to do with the Tribune Competition, for in that showing was brought into clearest light the deadline that lies between a Master of Ideas and one governed by ideas. There they came, squarely face to face: the second prize and the first. All the others may be grouped aside, for what is involved here is not a series of distinctions in composition or in detail, but the leading forth into the light of day of the profoundest aspiration that animates the hearts of

men. This aspiration has remained inarticulate too long; its utterance at large has been choked by varied emotions of fear; the splendor of its singleness of purpose has been obscured by the host of shadows generated in bewilderment of thought, in a world that has lost its bearings and submits in distress to the government of dying ideas.

In its preliminary advertising, The Tribune broadcasted the inspiring idea of a new and great adventure, in which pride, magnanimity and its honor were to be inseparably unified and voiced in "the most beautiful office building in the world," to be created for it by any man sufficiently imaginative and solid in competence in whatever spot on the surface of the earth such a man might dwell.

Specifically, on the third page of its formal and official program, these statements are made:

"To erect the most beautiful and distinctive office building in the world is the desire of The Tribune, and in order to obtain the design for such an edifice, this competition has been instituted."

These words are high-minded; they stir imagination.

At the beginning of the paragraph immediately succeeding are found these words:

"The competition will be of international scope, qualified architects of established reputation in all parts of the world being eligible."

These words are magnanimous; they stir not only the world of architectural activity, but as well that of enlightened laity. Never perhaps, in our day, has such interest in architecture been aroused.

Not yet content in its eagerness, and purposing to make assurance of good faith and loyalty to an ideal triply sure, there is to be found on page 13, the final page of the program, the following statement:

"It cannot be reiterated too emphatically that the primary objective of The Chicago Tribune in instituting this Competition is to secure the design for a structure distinctive and imposing—the most beautiful office building in the world."

The intensive use of the word PRIMARY gives to the full clause the imposing promise of a token, of a covenant with the Earth. With that one word, PRIMARY, The Tribune set its bow in the cloud.

The craving for beauty, thus set forth by The Tribune, is imbued with romance; with that high Romance which is the essence, the vital impulse, that inheres in all the great works of man in all places and all times, that vibrates in his loftiest thoughts, his heroic deeds, his otherwise inexplicable sacrifices, and which forms the halo of his great compassions, and of the tragedy within the depths of his sorrows. So deeply seated, so persistent, so perennial in the heart of humanity is this ineffable presence, that, suppressed in us, we decay and die. For man is not born to trouble, as the sparks fly upward; he is born to hope and to achieve.

If a critique of architecture, or any other art, or any activity whatsoever, is to be valid, it must be based upon a reasoned process. It must enter with intelligence into the object or subject at hand, there to seek what signifies, and yet maintain such detachment as to render judgment unconstrained and free. A true critique is not satisfied with the surface of things, it must penetrate that surface to search the animus, the thought; it must go deeply to the roots, it must go to origins, it must seek the elemental, the primitive; it must go to the depths and gauge the status of the work thereby. A true critique must likewise derive of the humanities. It is not its function to deal with cold truths but with living truths.

Viewed in this light, the second and the first prize stand before us side by side. One glance of the trained eye, and instant judgment comes; that judgment which flashes from inner experience, in recognition of a masterpiece. The verdict of the Jury of Award is at once reversed, and the second prize is placed first, where it belongs by virtue of its beautifully controlled and virile power. The first prize is demoted to the level of those works evolved of dying ideas, even as it sends forth a frantic cry to escape from the common bondage of those governed by ideas. The apposition is intensely drama-

tic to the sensitive mind. Yet it is in this very apposition that we find a key wherewith to unlock and swing open wide a door, and reveal to all the vast and unused power resident in the great architectural art when inspired into motion by a Master of Ideas. The Finnish master-edifice is not a lonely cry in the wilderness, it is a voice, resonant and rich, ringing amidst the wealth and joy of life. In utterance sublime and melodious, it prophesies a time to come, and not so far away, when the wretched and the yearning, the sordid, and the fierce, shall escape the bondage and the mania of fixed ideas.

It is wretched psychology to assume that man is by nature selfish. The clear eye of sympathy sees beyond a doubt that this is not so; that on the contrary, man by nature is a giver; and it is precisely this one discerns in this beauteous edifice; the native quality of manhood giving freely of inherent wealth of power, with hands that overflow, as to say: There is more and more and more in me to give, as also is there in yourselves—if but ye knew—ye of little faith.

Qualifying as it does in every technical regard, and conforming to the mandatory items of the official program of instructions, it goes freely in advance, and, with the steel frame as a thesis, displays a high science of design such as the world up to this day had neither known nor surmised. In its single solidarity of concentrated intention, there is revealed a logic of a new order, the logic of living things; and this inexorable logic of life is most graciously accepted and set forth in fluency of form. Rising from the earth in aspiration as of the earth and as of the universal genius of man, it ascends and ascends in beauty lofty and serene to the full height limit of the Chicago building ordinance, until its lovely crest seems at one with the sky.

This is not all; there remain, for some, two surprises; first, that a Finlander who, in his prior experience, had not occasion to design a soaring office building, should, as one to the manner born, have grasped the intricate problem of the lofty steel-framed structure, the significance of its origins, and held the solution unwaveringly in mind, in such wise as no American



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February, 1923

SECOND PRIZE—THE CHICAGO TRIBUNE COMPETITION.
Eliel Saarinen, Helsingfors, Finland.



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FIRST PRIZE—THE CHICAGO TRIBUNE COMPETITION
John Mead Howells and Raymond Hood, New York.

[155]

architect has as yet shown the required depth of thought and steadfastness of purpose to achieve.

Philosophy has been defined by a modern philosopher as the science of substantial grounds. It is the notable absence of substantial grounds, in the ambitious works of our American architects, that so largely invalidates such works, and groups them as ephemera. But the design of the Finlander, Master of Ideas, is based upon substantial grounds, and therefore it lives within the domain of the enduring.

Second surprise: That a "foreigner" should possess the insight required to penetrate to the depths of the sound, strong, kindly and aspiring idealism which lies at the core of the American people: one day to make them truly great sons of Earth; and that he should possess the poet's power to interpret and to proclaim in deep sympathy and understanding, incarnate in an edifice rising from Earth in response to this faith, an inspiring symbol to endure.

Why did the men behind The Tribune throw this priceless pearl away?

Would that one might say words of similar nature, if less fervent, for the unfortunate first prize; but it is the business of this review to make a searching psychological analysis and summary of the two designs, as *types*, in order that the heavy of eye may see revealed the architectural art as a vast beneficent power, lying now in continental sleep, ready, ever ready, to be awakened by Masters of Ideas, who shall affirm its reality in eloquence of form.

Then shall we become articulate as a people; for to reveal one art is to reveal all arts, all aspirations, all hopes: and the substantial ground of it all shall arise from out our timid faith in man—a faith patient and long suffering under the superstitious tyranny of insane ideas. But once let the beckoning finger of the Free Spirit be seen in the open, and a voice heard that saith: Arise; come unto me. for I am Life—then will that timorous faith come forth inquiringly, and in the glow of the Free Spirit grow strong. The Ego of our Land shall thus find its own;

for Man shall find Man. Why, therefore, deal in trivialities? Why inquire, with spectacles on nose, why this or that dewdad should be thus or so?

Confronted by the limpid eye of analysis, the first prize trembles and falls, self-confessed, crumbling to the ground. Visibly it is not architecture in the sense herein expounded. Its formula is literary: words, words, words. It is an imaginary structure—not imaginative. Starting with false premise, it was doomed to false conclusion, and it is clear enough, moreover, that the conclusion was the real premise, the mental process in reverse of appearance. The predetermination of a huge mass of imaginary masonry at the top very naturally required the appearance of huge imaginary masonry piers reaching up from the ground to give imaginary support. Such weird process of reasoning is curious. It savors of the nursery where children bet imaginary millions. Is it possible that its author in his heart of hearts, or his head of heads, really believed that bathos and power are synonyms? It looks that way. It also looks like the output of a mind untrained in the mastery of ideas, in the long discipline of realities and the test of substantial grounds. It looks also like the wandering of a mind unaccustomed to distinguish between architecture and scene painting. This design, this imaginary building, this simulacrum, is so helpless, so defenseless when brought face to face with mastery of ideas and validity of grounds, that it is cruel to go on, for analysis is now becoming vivisection, unless we recognize the palpable effect of self-hypnotism. This is not to say that the individual who made the first-prize design did not *believe* he had a great idea. Certainly he believed it, otherwise he would not have taken himself so seriously. Such seriousness prevented him from seeing the humor of it, from seeing something funny and confiding. If the monster on top with its great long legs reaching far below to the ground could be gently pried loose, the real building would reveal itself as a rather amiable and delicate affair with a certain grace of fancy. And even so, it could be but as a foundling at the door-

step of the Finn—for it seems they breed *strong* men in Finland.

So much, for the present, concerning the second and the first prize.

Our attention now shall concentrate upon The Tribune. By "The Tribune" is here meant, not alone printed white paper, but incisively the men behind its screen, who stand for ownership and control. These men made a solemn promise to the world. Why did they renege? Individually and jointly they made a triple promise—as set forth above—as members of the Jury of Award. A design setting forth the most beautiful conception of a lofty office building that has been evolved by the fertile mind of man, was presented squarely to them at the last moment. Were they frightened? Why did they welch? Did it come upon them as a ghost, an apparition—a revelation most unwelcome at a time when everything seemed nicely settled? Was this vision as trebly disconcerting as the remembered triple-promise, arising now also as a confronting ghost—the two ghosts standing side by side—likewise the two designs, in material form, standing side by side?

For no choice can exist without motive. Men are both revealed and betrayed by their acts. For men's acts show forth their inmost thoughts—no matter what their speech may be. Man can create solely in the image of his thought; for thoughts are living things—words may dissemble. In men's acts alone is the reality of their thought to be sought and found—there is no hiding place secure

against the tracking searcher. In the same sense the two competing drawings are acts. Each clearly reveals the thought of its responsible author. Each sets forth in the materials of a drawing, presented as a symbol of an edifice to be, the power or the frailty of the thought within.

No manipulation of words or felicity of phrasing can screen from view the act of the Jury of Award, or the dominating will of one or more of its personnel. The final choice is most obviously an act of dominion—of brutal will. For, to cast aside, with the sop of a money prize, the surpassing work of a "foreigner" of high distinction and thorough discipline in executed works, was an act of savagery in private, regardless of how neatly, how sweetly, thereafter, the man may have been shown the door, as a parting and an honored guest, as one whose presence in the house had indeed triply honored his host.

Thus vanished from sight The Tribune's bow in the cloud.

Its act has deprived the world of a shining mark, denied it a monument to beauty, to faith, to courage and to hope. Deprived an expectant world of that Romance for which it hungers, and had hoped to receive. "It cannot be reiterated too emphatically that the primary objective of The Chicago Tribune in instituting this Competition is to secure the design for a structure distinctive and imposing—the most beautiful office building in the world."



The Architectural Record

February, 1923

MEMORIAL HALL—ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY,
LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.

Drawn by Hugh Ferriss.

The
ALUMNI MEMORIAL ADMINISTRATION
BUILDING FOR LEHIGH UNIVERSITY



THEODORE VISSCHER *and* JAMES BURLEY, ARCHITECTS

By
Matlack Price

“ARCHITECTURE,” said G. K. Chesterton, “is a very good test of the true strength of a society, for the most valuable things in a human state are the irrevocable things. . . . And architecture approaches nearer than any other art to being irrevocable, because it is so difficult to get rid of. You can turn a picture with its face to the wall; it would be a nuisance to turn that Roman cathedral with its face to the wall. You can tear a poem to pieces; it is only in moments of very sincere emotion that you tear a town hall to pieces.”

As a war memorial for Lehigh University, at Lehigh, Pa., then, an addition to its architecture was chosen by its Alumni Association. No more favored than most of our universities and colleges, the buildings at Lehigh are, for the most part, survivals of the prevailing architectural aberration of the eighties, offering no basis as precedent for any additions. One architectural style, however, because of its inherent appropriateness to institutions of learning, dwells in harmony even with a diversity of non-descript styles and near-styles — the Scholastic, or, as it is frequently called, the Collegiate Gothic, endeared to generations of scholars as the style of the venerable colleges of Oxford and Cambridge. It held much of the picturesque and vigorous quality of Gothic

architecture, but left behind it the extreme ecclesiasticism of the Church and looked forward to the more humanistic Renaissance charm of the Tudor style.

Scholastic Gothic is a style of peculiar charm, now massive and stately, now rambling and domestic; its details range from tall, mounting buttresses and stately windows to unexpected grotesques and grouped mullioned windows with leaded casements.

The exterior aspect of the Lehigh Memorial admirably realizes the possibilities of this style, not only in the mass and profile, but in the detail and mannerisms of rendering. The tower obviously can make or mar the effect of a building of this type, and here the architects have achieved vigor and impressiveness without error in general character or in the scale of any of the parts. The tower expresses, in fact, the combined strength and delicacy which particularize the Scholastic Gothic style. The buttresses throughout are handled with forcefulness and ease, and with a complete freedom

from the kind of purely pictorial artificiality which very often makes buttresses look ridiculous instead of impressive. These seem an essential structural part of the whole, and for that reason fit easily and naturally into the picture which the building, *per se*, makes.

The building is set with its long axis at



right angles to a slight grade, so that the right wing goes somewhat lower as to its base than the left wing, and the entrance is reached from the lower level by steps to a terrace. The entrance, in the tower, is excellently proportioned to the whole tower, and to the windows above it. The deep recessing, and the massiveness of the buttresses convey a fine expression

The section reveals something of the disposition of the Memorial Hall, into which the main entrance gives directly. The central portion of the Hall, which occupies the base of the tower, rises to a height of three stories, and above the entrance is a great mullioned window which, at some future time, will glow with colored glass. The first floor plan, in

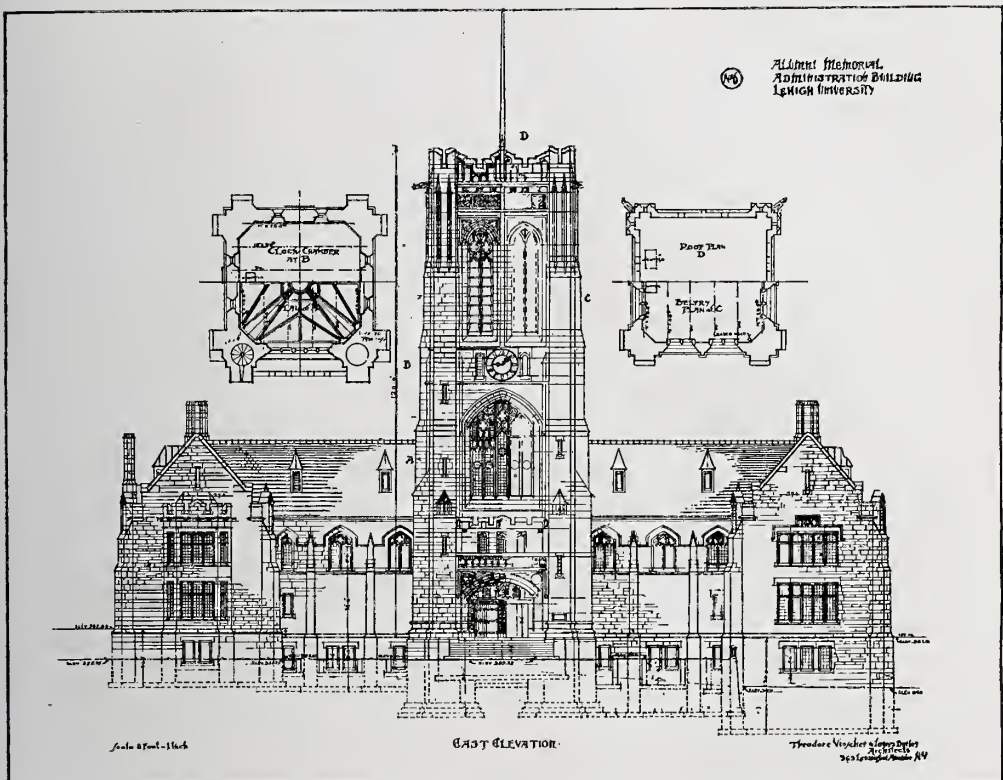


Drawn by Hugh Ferriss.

ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY, LEHIGH, PENNA.
Theodore Visscher and James Burley, Architects.

of the weight and stability of the tower. Very evidently it is not to be one of those unfortunate towers which look well on paper and build into brittle and unsubstantial parodies when they are constructed. It is a thing of three dimensions and of weight, of a static, reposeful quality essentially a part of the style in which it is designed. Old buildings in the Scholastic Gothic manner seem always to rest comfortably and substantially on the earth, rather than to aspire to the clouds.

in conjunction with the perspective of the interior, shows that the portions of the Memorial Hall which extend right and left into the wings are rib-vaulted, and are two stories in height. The walls are of artificial Caen stone, and will ultimately bear memorial tablets, flags and other memorabilia. On the same floor, located in the left wing, are various offices for the executive officers of the University, while the right wing is occupied by the offices of the Alumni Association.



EAST ELEVATION—ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY, LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.

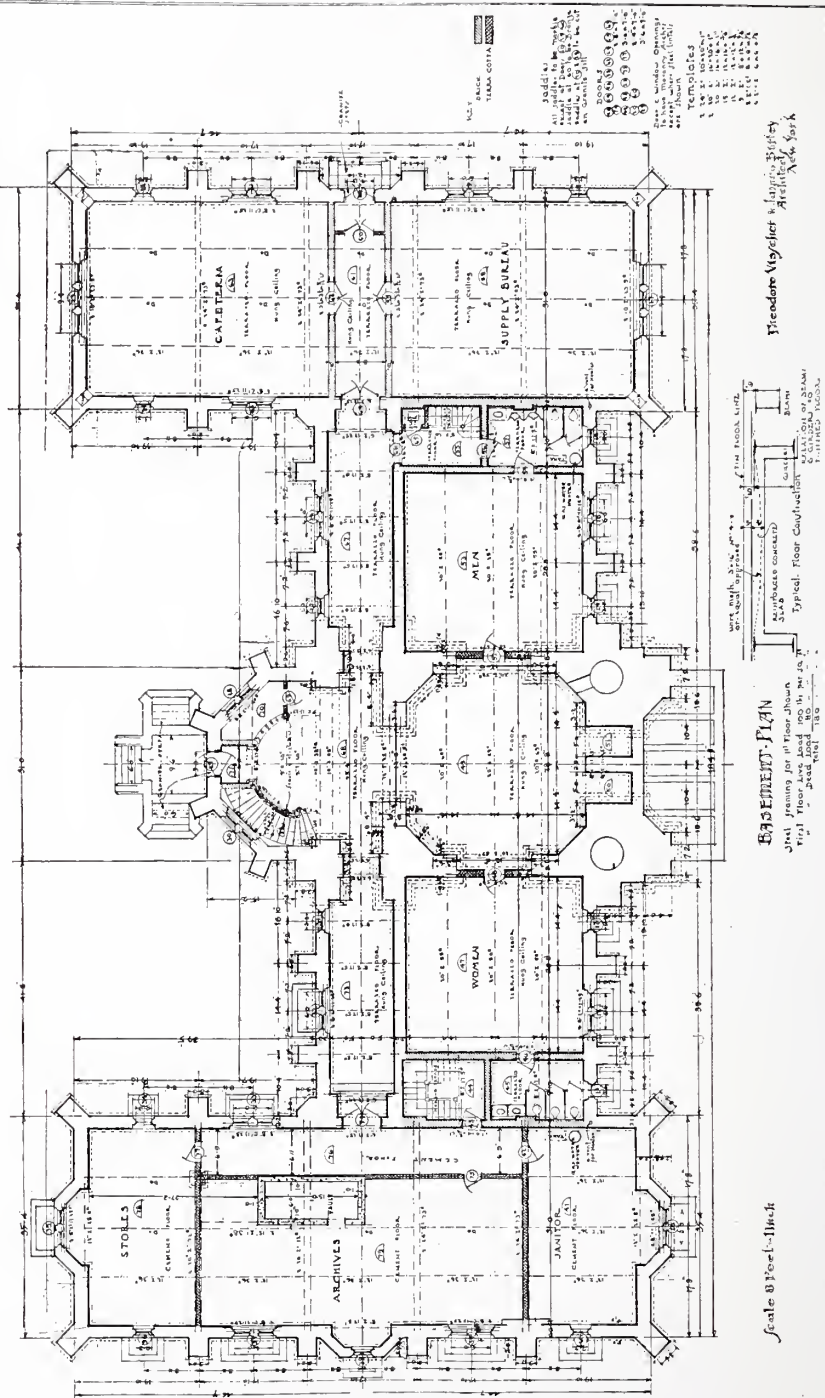
The second floor of the left wing is taken up with other University offices, and a large oak-panelled assembly room, for the use of Faculty and Alumni, occupies the entire second floor of the right wing. Various provisions for storage, and for service, including a cafeteria, occupy the basement floor.

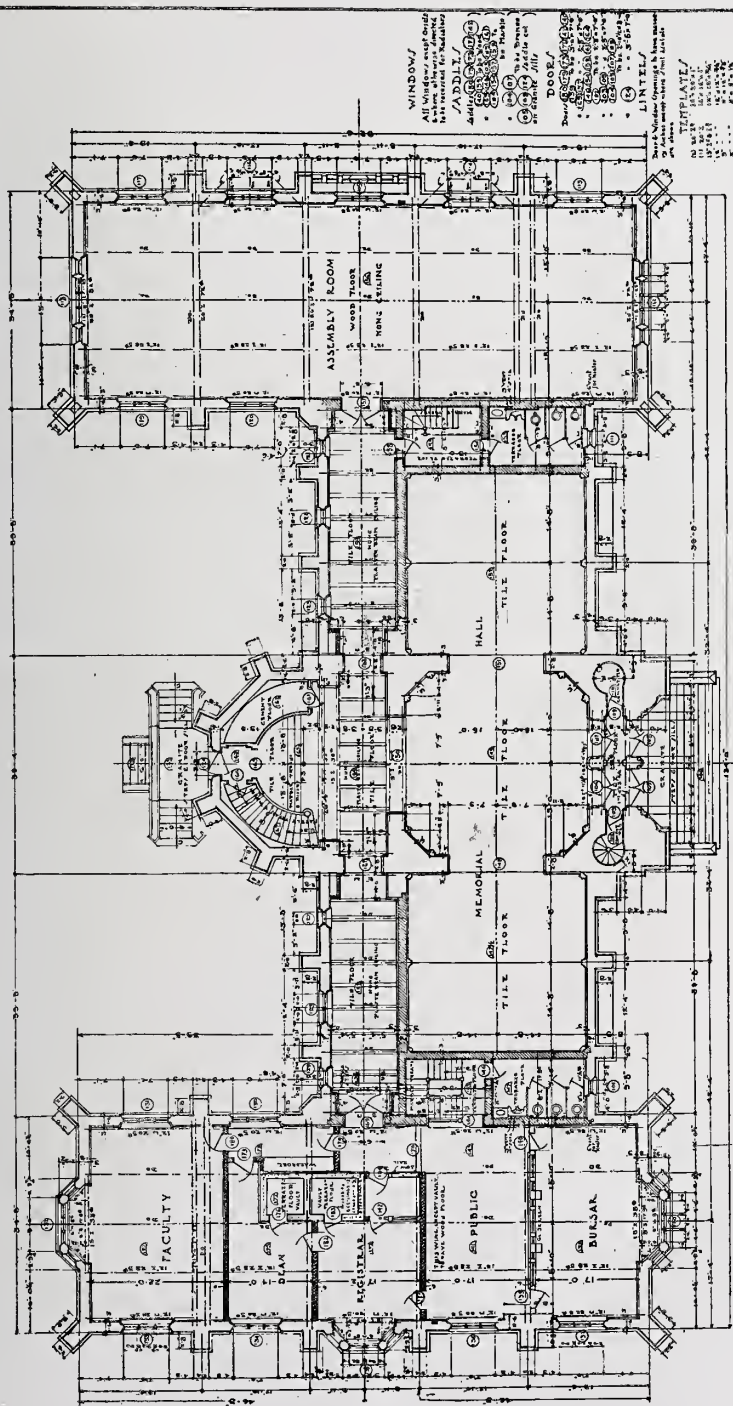
The front elevation shows at once that in this most uncompromising form of presentation, shorn of any illusion of perspective, any softening colors or atmospheric effects of rendering, shorn even of any substance, the Lehigh Memorial building possesses a fundamental ease and rightness of proportion. Even here the tower is not a paper tower—its four-square solidity asserts itself in a two-dimensional outline and the gable ends of the wings seem excellently to balance it.

Obviously, the tower was the dominating essential of the whole building, and the rightness of its proportions, and of its relationship to the wings is apparent not only in the front elevation, but very significantly in the end elevation. Too often a disproportionate amount of architectural thought is expended on front elevations, at the expense of side and rear elevations, but here, as the reproduction of the scale drawing of the end elevation shows, there is a peculiarly pleasing and easy relationship.

I cannot say honestly that I believe such relationships can be achieved by formulae or measurements, by theories of "dynamic symmetry," or whatever else. Good design is simply good design, springing from the ability and inner consciousness of the designer, and this tower is beautiful and well-related to the building not

Alumni Memorial
Administration Building
LEHIGH UNIVERSITY





Scale 8 Feet - 11 inch

FIRST FLOOR PLAN

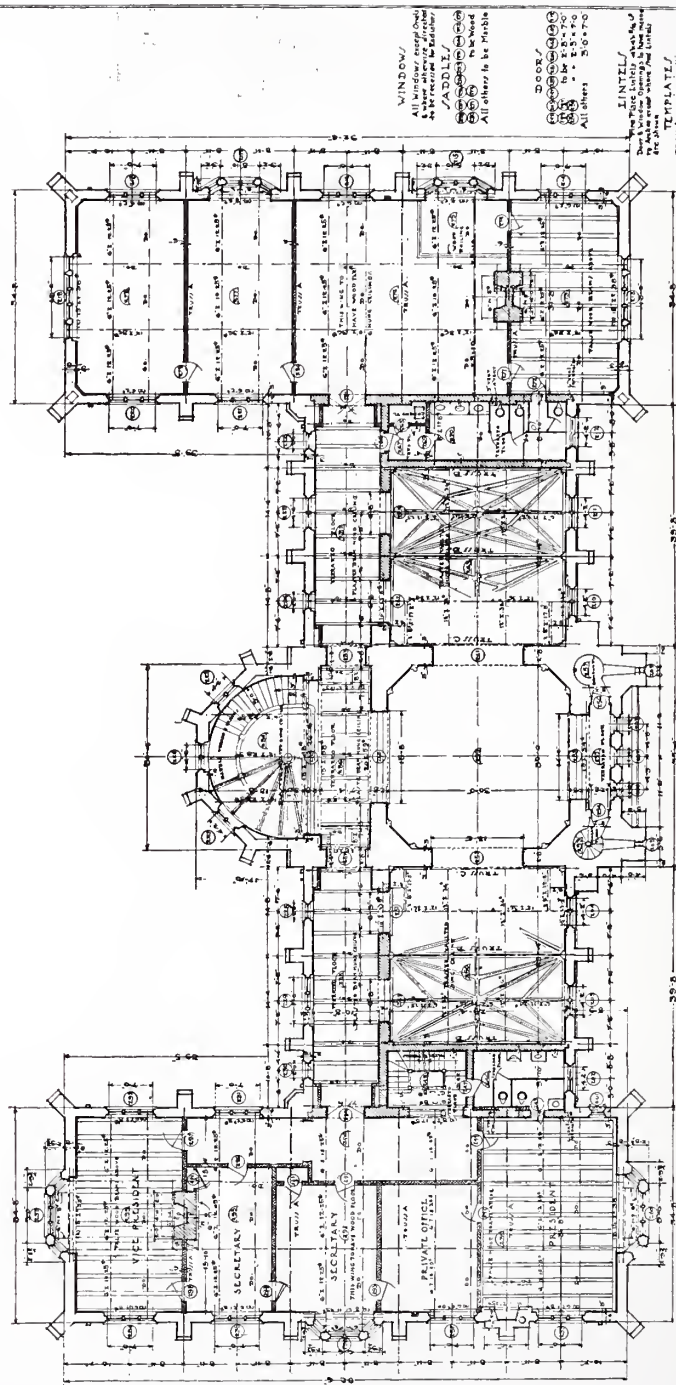
Actual Seamings for Second Floor shown	
and Third Floor Live Load 60 lbs. per sq. ft.	
Dead =	80
Total =	140

2nd Floor Slab 4" Concrete
Reinforced with 5" x 4" mesh @ 9" o.c.

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ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY, LEHIGH, PENNA.
Theodore Visscher and James Burley, Architects.

February, 1923



SECOND FLOOR PLAN

Charles Stewart - 11/15/58

Theodore Vixie & James Dwyer
Architects
New York

Steel framing for Attic Floor shown
Attic Floor Live Load as lbs. per sq. ft.
Dead = .60 " " " " " "
Roof = .70 " " " " " "
Total = 1.30 lb. per sq. ft. for Flat Roof
Attic Floor & Flat Roof Slabs + Concrete
Reinforced with #1's, Mesh #7-20

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ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY, LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.

February, 1923



SECTION LOOKING SOUTH AND WEST—ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY, LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.

because it is in some obscurely figured relationship of squares, cubes, angles or arbitrarily formulated numbers, but because it is beautiful and well-related.

The detailing of the building is largely the work of Mr. Nathaniel Vickers, whose years spent in restoration work in England are apparent in the sympathetic feeling for the true style which is the prototype and inspiration of the Lehigh Memorial. The preliminary sketches promise much in the way of grotesque corbels and bosses, and in the easy, flowing foliated ornament

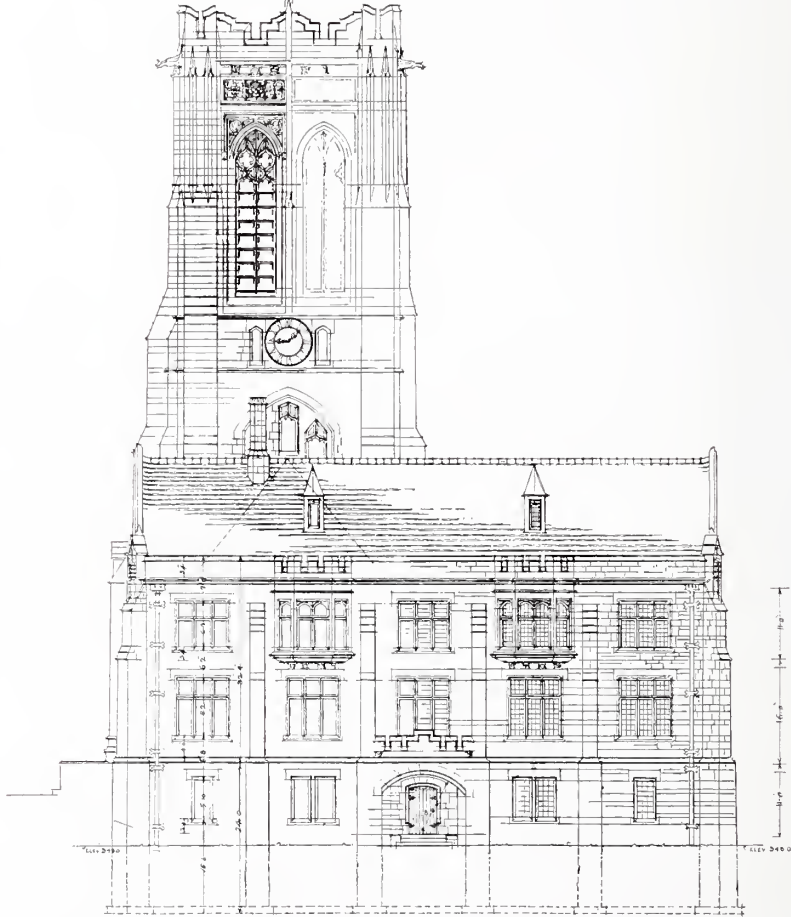
characteristic of this phase of English Gothic architecture. Few types of ornament can suffer more grievously when they are merely copied from a book instead of being thus organically evolved.

A conspicuous factor in the charm and interest of a building in the Scholastic Gothic style is found in emphasis of local color and character in materials, and the informal, colloquial manner in which these are used.

The exterior walls of the Lehigh Memorial are built of a stone similar to the familiar "Chestnut



ALUMNI MEMORIAL
ADMINISTRATION BUILDING
LEHIGH UNIVERSITY



Scale 8 Feet = 1 Inch

NORTH ELEVATION

Theodore Visscher & James Burley
Architects
363 Lexington Ave. N.Y.

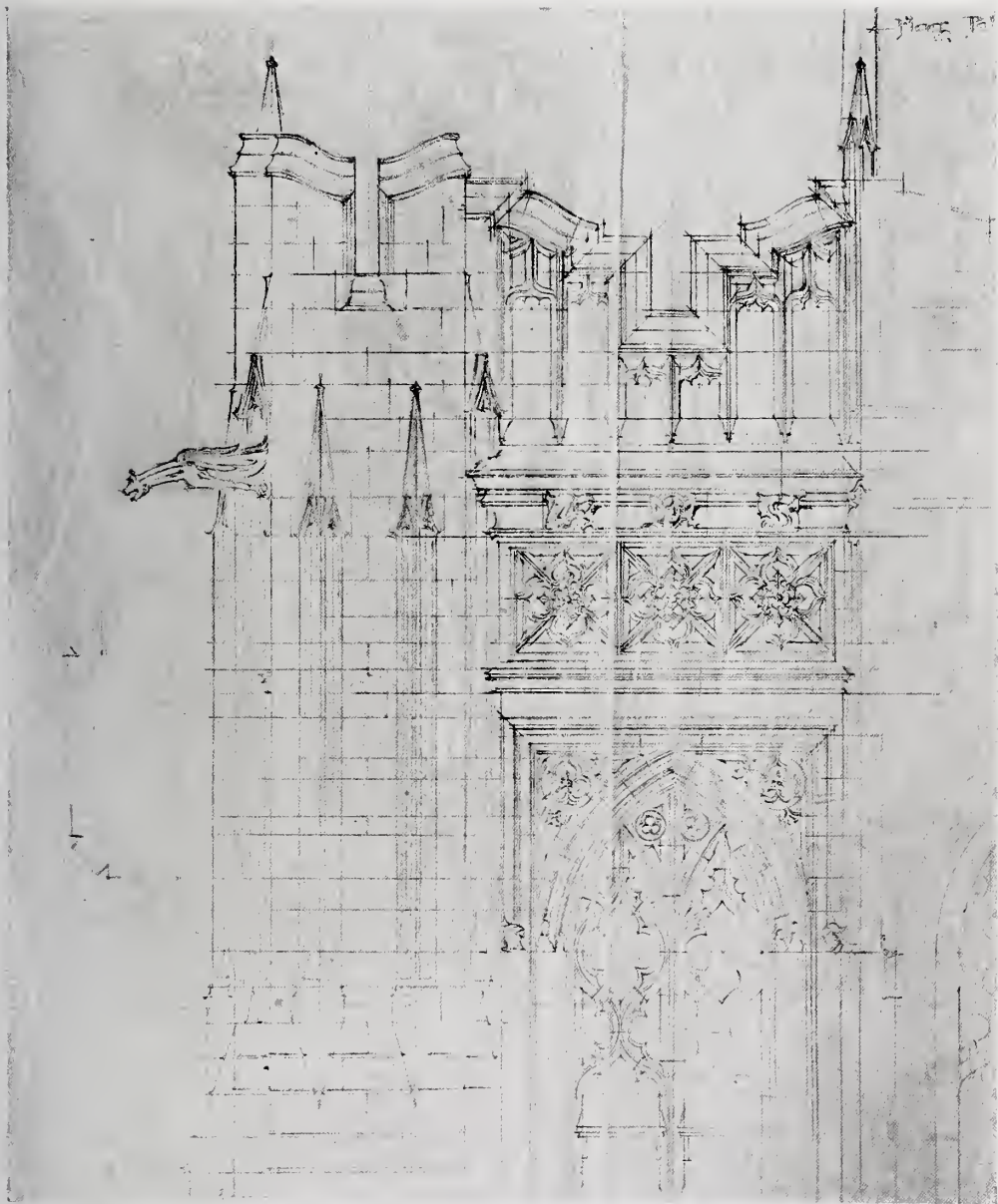
The Architectural Record

February, 1923

NORTH ELEVATION.

ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY.
LEHIGH, PENNA.

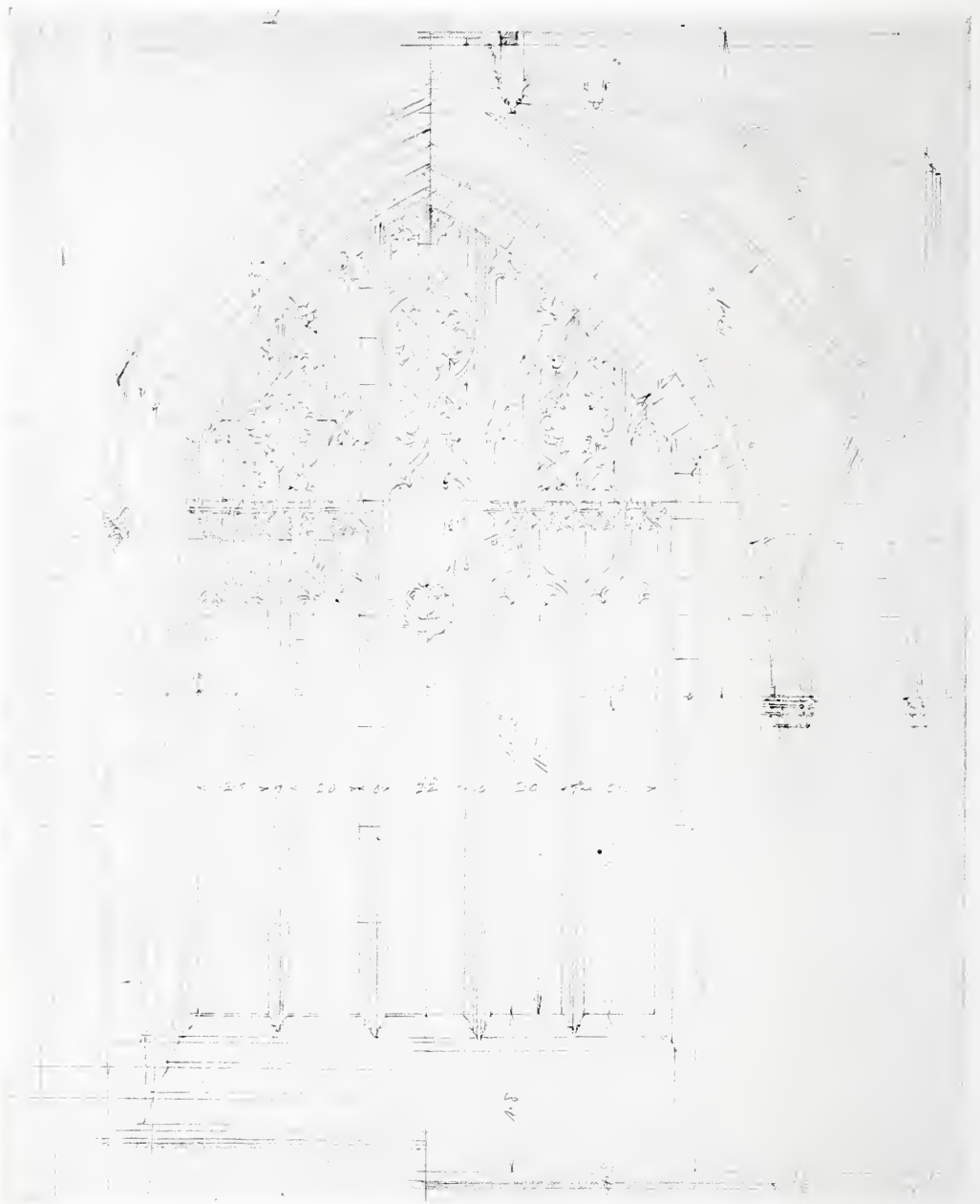
Theodore Visscher and James Burley, Architects.



SCALE DETAIL, TOP OF TOWER.

ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY,
LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.



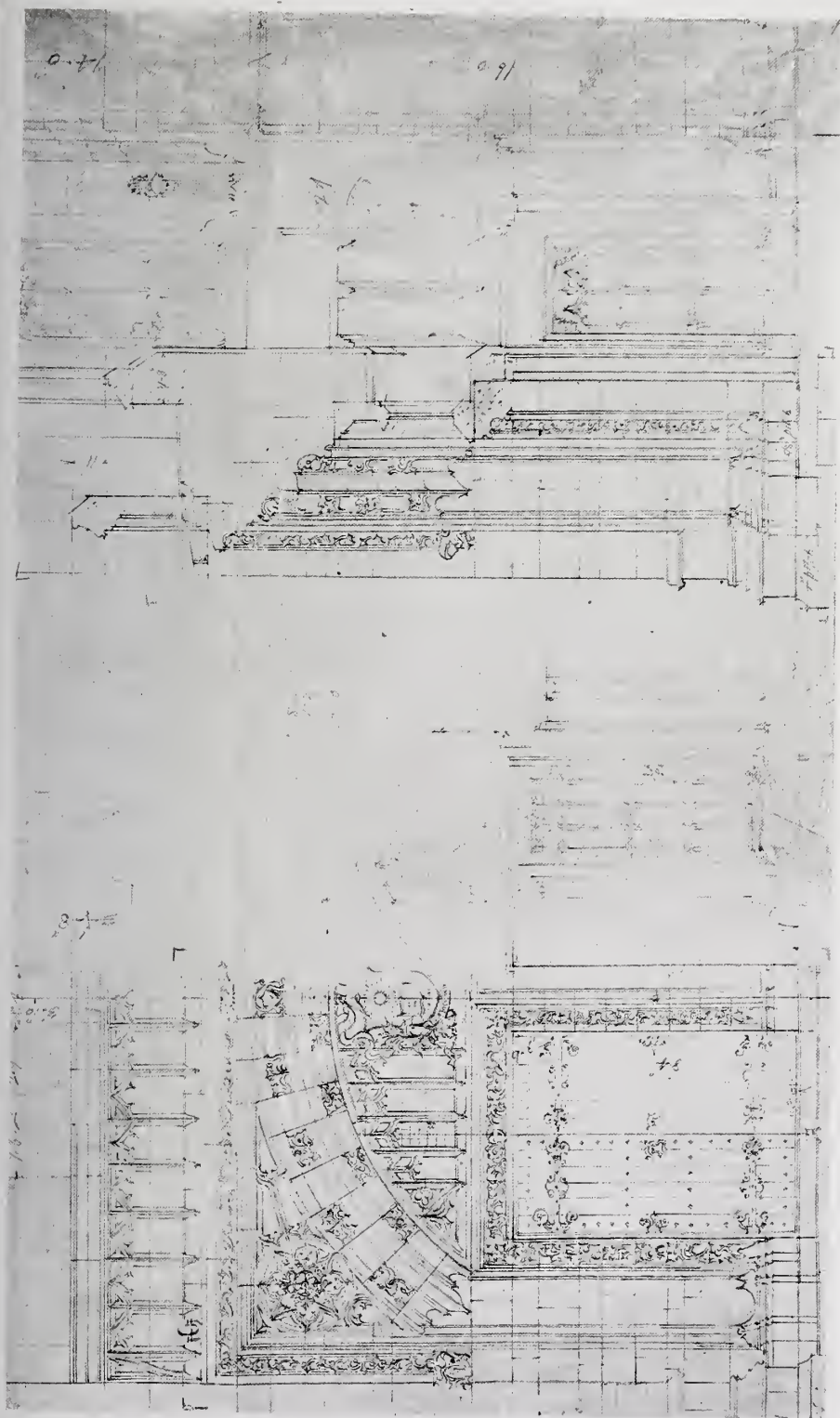
The Architectural Record

February, 1923

SCALE DETAIL, MEMORIAL WINDOW AND VAULTING.

ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY,
LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.



The Architectural Record

DETAIL, MAIN ENTRANCE-ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY,
LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.

February, 1923



SCALE DETAIL OF GALLERY RAIL—ALUMNI MEMORIAL ADMINISTRATION BUILDING
LEHIGH UNIVERSITY, LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.

Hill" ledge stone of the vicinity of Philadelphia. Its color presents a range from blue-gray to golden-yellow, and the architects have laid it up in random coursed ashlar, which combines, in its even bonding courses and the intervening random masonry an agreeable compromise between formality and informality. Nothing tends more to destroy the character of a building in the Scholastic Gothic style than formality or "tightness" in the design or execution of its detail, or in the materials of its construction. The logical choice for roofing material was graduated slate, with its rough texture and varied color range, and all the trim is of dressed limestone.

Three illustrations show portions of the detail drawings of the main features of the tower:

the entrance, the mullioned memorial window above it, and the top. These details show a very interesting absence of anything like a hard, mechanical feeling. They seem to be drawn with a thoughtful sympathy and even a veneration for the style. From the drawings it seems as though the building must come out finally in execution with an unusual quality of sincerity and soundness.

If stylistic architecture in this country were under criticism, it might be said that much of it is too facile, almost too well done. We often make buildings more earmarked with the traits of a given style than if they had been built in the period in which the style flourished. It is largely a question of spontaneity, of working *in* a style rather than *with* it, and



DRAWING No D-115
Revised Aug 30/22



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STUDY OF STAIR HALL.

ALUMNI MEMORIAL ADMINISTRATION BUILDING, LEHIGH UNIVERSITY, LEHIGH, PENNA.

Theodore Visscher and James Burley, Architects.



STUDY FOR ORNAMENT.

here the Lehigh Memorial Building promises to be exceptional as a modern rendering of a transplanted historic style.

It is not unduly difficult for architects to acquit themselves well on the technical aspects of a building, whether these be taken to mean its structural facts, or the literal execution of a given style of architecture. Ample material exists, ready to the hand of the mere copyist, but with historic precedent must be fused the more intangible and indefinable elements of architecture. To say that the architects of the Lehigh Memorial building have done this is to indulge in trite and somewhat threadbare critical phraseology, notwithstanding the truth of the statement.

It is apparent that more than the hand of the architect has been at work in the building which is shown in the drawings accompanying this commentary. Architecture, from its nature, needs for its proper creation a nice co-ordination of heart and head and hand, and of these (if the evidence of past ages means anything) the heart is of vastly greater importance. Indifference or impersonality on the part of the architect has never yet produced a building worthy to be ranked as architecture, or in the least likely to possess any permanent significance.

But here is a building which evidently enlisted in its design the best and most sincere faculties of its architects, and which, possessed inherently of true architectural quality, will grow old gracefully and, with age, taking on only a greater dignity and poise as it becomes a part of the life and tradition of the University for which it was designed.



STUDY FOR ORNAMENT.

RECENT HOUSING WORK ~ IN WESTERN EUROPE ~

By

Mrs. Edith Elmer Wood

Author of "The Housing of the Unskilled Wage Earner"



[Mrs. Wood has spent ten months studying housing work in Western Europe. Her forthcoming book on the subject will embody the results of her observations. She has summarized this material for our readers in the following article.—Editor.]

IN spite of hard times, Western Europe is building houses for workingmen—better houses than they ever lived in before—and it intends to keep on building them till there are enough to go round: one house or one apartment for each family. When it has caught up on the number of dwellings, it proposes to buy or expropriate, in order to demolish, all its left-over slums and near-slums. By the time all this happens, it will be well on the way to producing a super-race, and we shall have to look to our laurels.

In Great Britain the slogan, dating from the war years, has been "homes fit for heroes." And it was recently shown that 90 per cent of the cottages so far built by local authorities were in fact tenanted by ex-service men. In France, the emphasis has been laid on helping those with large families of young children. In Italy more is being done just now for the small-salaried office employee than for the manual worker, whose wages have kept pace better with the cost of living.

In Belgium, Holland, France and Italy, the building trades are fully employed, and in Great Britain they have been much more nearly so than any other group. Architects have concentrated their attention on working men's homes as never before. Standardization and quantity production have been invoked to reduce costs, while much ingenuity is being spent in avoiding monotony.

THE HOUSING STANDARD

There is surprisingly little difference in accepted standards. Great Britain has undoubtedly set the highest—living-room,

three bed-rooms, scullery and a bath, with a parlor fast assuming its place as one of the minimum requirements. In France, Belgium and Holland, it is living-room, three bed-rooms, with a laundry or scullery, the parlor being rare, and the bath wholly exceptional unless as a communal service. In Italy the multiple dwelling is still preferred to the cottage, and the standard apartment consists of living-room, with two or three bed-rooms, and often a sort of scullery-kitchenette. Everywhere there are electric lights, running water in the sink, and a sewer-connected water-closet.* The presence or absence of clothes-closets and cupboards seems to depend largely on the extent to which women have been consulted. They are most prevalent in England and Holland. Ceilings are higher in France than in England, and in Italy they are highest of all. Italian rooms have also a larger average area than those elsewhere, but the average number of rooms per family is less in working-class houses.

The garden city maximum density standard of 12 dwellings to the acre (30 to the hectare) seems to be accepted everywhere. If Mr. Ebenezer Howard had accomplished nothing else in his useful life, he might well feel he had not lived in vain.

The modern British housing movement has been greatly blessed in having an architect and town-planner of the high calibre of Mr. Raymond Unwin preside

*Some of the continental types, though not insanitary, would be strongly objected to by American tenants on the score of discomfort. The location of the water-closet is also sometimes open to criticism.

over its early destinies. The compelling charm of Hampstead, Letchworth, and others of his creations have set a standard which preserves England from incalculable ugliness and minimizes experimental eccentricities. Indeed to me the tremendously impressive thing in British housing progress is not so much the half dozen show places that they take strangers to see, as the large and small groups of cottages that have gone up all over the country—just “ordinary local authority housing schemes,” they tell you when you ask. You cannot take the smallest trip in any direction without seeing them. There are four or five thousand of them, and the island is not very big. Grant that many of the cottages are copied from the Unwin designs (why not, since they are good designs?), and that many of the lay-outs are commonplace (so are the majority of people), the fact remains that they are good, comfortable, well-built cottages, much better built than those the speculative builder was wont to turn out for middle class occupants, and in much better taste.

NUMBER OF DWELLINGS BUILT

Great Britain. It is all very well to talk about the “failure of the British housing program,” as has been done in the United States in varying tones of “I told you so.” Our British cousins get back at us by making equally complacent observations on the “failure of American prohibition.” If they had not imprudently announced that they were going to build 500,000 houses, nobody would have dreamed of calling it a failure when they decided on a halt at 215,000 or thereabouts. At all events, if we could only have a few such failures at home, we might see the end of our housing shortage. No other country has ever started so big a housing program as Great Britain has already carried out. And anybody who thinks Great Britain has finished has another guess coming to him. Scotland has already received permission to keep on building for two years more, and a large section of the English public intends to see that England is not discriminated against. Undoubtedly the provisions of

the Housing Law of 1919 will be modified, but the housing program will go on.

Here is the British accomplishment since the war, *i.e.*, since the latter part of 1919, when the necessary legislation was passed, to October 1, 1922, a period of barely three years.

Undertakings of local authorities, urban and rural.

Dwellings completed	141,231
Dwellings under construction.....	21,997
Dwellings with plans and bids approved	4,570

Total 167,798

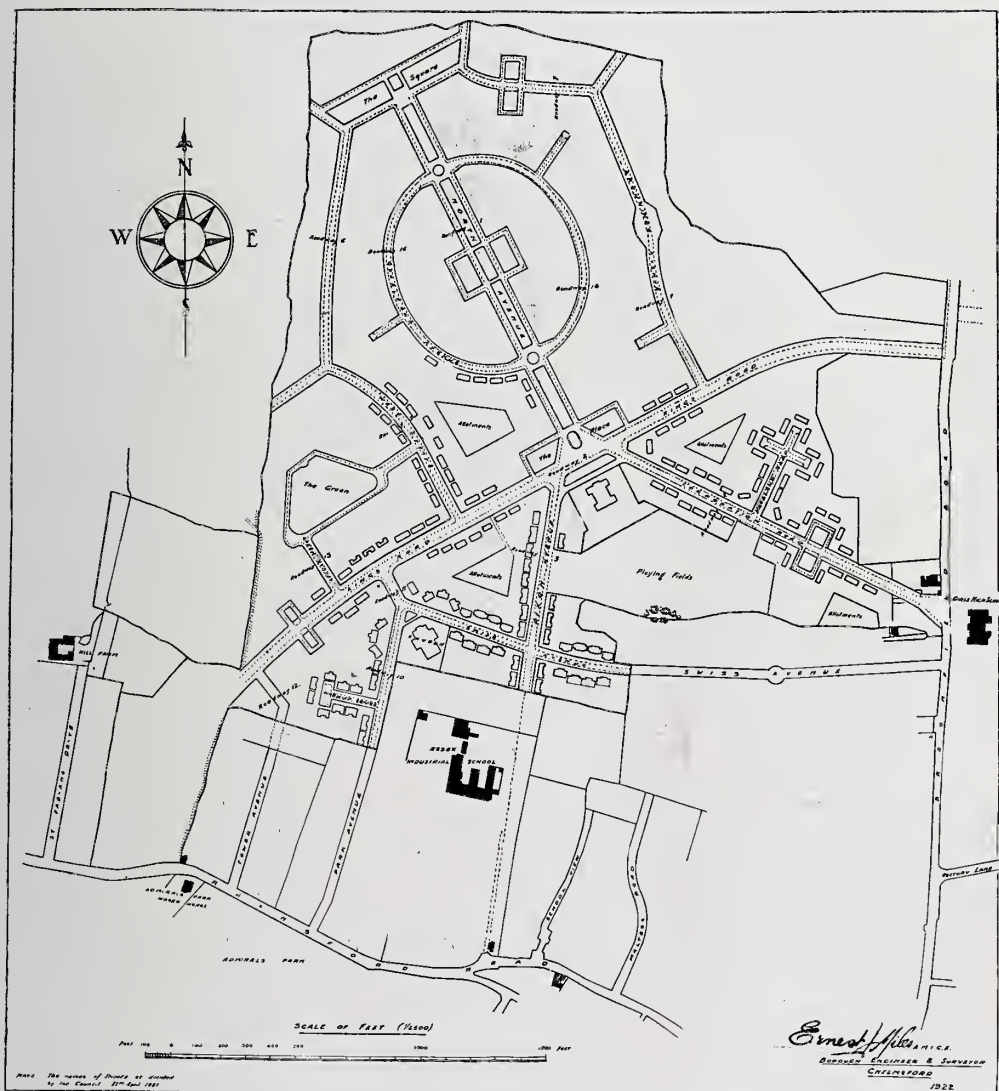
In addition, about 4,000 houses have been built during this period by Public Utility Societies which had government loans and an interest subsidy, and about 40,000 by private builders, who had capital subsidy but no loans.

France. It must always be borne in mind in speaking of France, Belgium and Italy that their post-war housing problem has been immensely complicated by the need of rebuilding at once the areas laid waste during the war. France had more than 600,000 dwellings to rebuild; Belgium had 80,000; Italy perhaps 200,000. Rather more than half of this great work has been accomplished in France about four-fifths in Belgium and three-fourths in Italy*.

Merely in the number of dwellings constructed in France during the last three years, the British output has, therefore, been exceeded by about one-half. But, of course, the two achievements are not in any real sense comparable. The story of the rebuilding of the devastated areas is an inspiring one, but it is a story apart, which does not concern us here, except insofar as, very obviously, if that enormous amount of energy, technical, industrial and financial, had not been absorbed in rebuilding old houses, the new work undertaken could have been, and doubtless would have been, on a much larger scale.

There has been some building, however, in the devastated regions which does concern this study, where, instead of simply

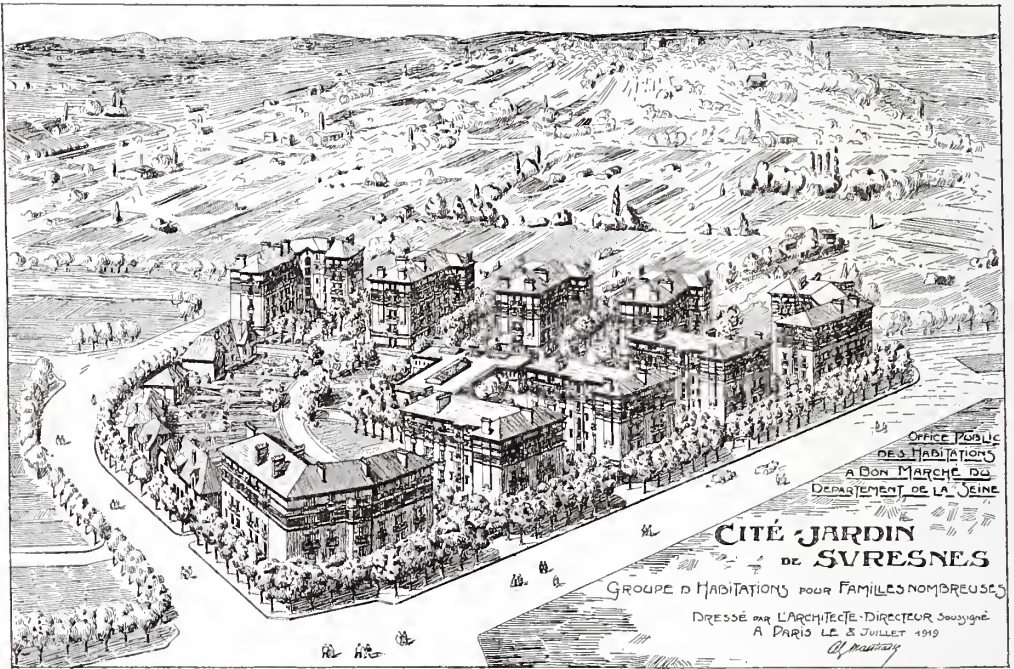
*These figures are only roughly approximate. The responsible officials are too busy rebuilding to publish reports.



The Architectural Record

February, 1923

A typical local authority "Boarded Barns" housing scheme for the garden suburb of Chelmsford (20,000 inhabitants), Borough of Chelmsford, Essex, England. It was planned for 1,000 cottages, but has been halted for the present at 280.



Workmen's apartments—French government housing development at Suresnes, near Paris.

reproducing the old houses and the old streets, something different and better has been evolved. Especially is this true of the series of garden villages and garden suburbs erected for its employees by the French Railroad Company of the North (*Compagnie du Chemin de Fer du Nord*),—32 in all, containing 12,000 dwellings and 60,000 people. The larger ones (Tergnier, Bethune, Lens, etc.), are complete little communities with everything new about them—streets, sewers, water-supply, churches, play-grounds, schools and shops, club houses, health centers and movies.

Equally is it true of the beautiful garden suburb of Rheims, *Chemin Vert*, built by a philanthropic society, the *Foyer Rémois*, of which Monsieur Georges Charbonneaux is president. This little community contains 600 cottages, besides a variety of social service buildings, and another, to be built at the other side of the city, will be nearly as large.

These are housing developments with the same standards and aims as the best

in the non-devastated regions, with the added merit of having been carried out in the face of overwhelming difficulties.

Outside the devastated area, the greatest effort is undoubtedly being made in and around Paris. Here are the latest figures for the City of Paris, acting directly and through its *Office Public des Habitations à Bon Marché*:

Dwellings constructed.....	1901
Dwellings under construction.....	4958
Dwellings for which plans are completed	2985
Total	9844

All these are in large, well-built, architecturally pleasing apartment houses, never more than two rooms deep and covering but 45 per cent of their lots. Under these circumstances, it will be seen that in spite of what appears to be excessive height (seven stories for the most part) every room is light and well aired.

The Department of the Seine, in which Paris is situated, but which, by agreement, operates only in districts outside the city limits, is putting up a whole circle

of exceedingly attractive garden suburbs (Les Lilas, Arcueil, Drancy, Dugny, Nanterre, etc.) in which the one-family cottage greatly predominates, although in a few cases (as at Stains and Suresnes), the multiple dwelling is also to be found. Where this occurs, it is not so high as in the city, four and five stories being the maximum, the amount of open space being much greater and the surroundings entirely park-like.

Figures for the Department show:

Dwellings constructed.....	1252
Dwellings under construction.....	963
Dwellings for which plans are completed	1100
Total	3315

The *Office Public* of the suburban town of Puteaux has 762 dwellings under construction. We have therefore a grand total for the Department of the Seine and Paris of about 14,000 dwellings.

The foregoing is by no means exhaustive of French housing effort. There are 106 *Offices Publics des Habitations à Bon Marché*, all but 14 of which have been established since the war. A number of these are carrying out building schemes and others are preparing to do so.

There are also 487 limited-dividend housing societies, 283 of them coöperative. Most were in existence before the war, and most, because of building costs, are at present quiescent. Not all, however, and the aggregate of their accom-

plishment since the war is considerable.

In spite of high costs, building continues under the Ribot law, which provides for loans at a low interest rate to the individual workingman who wants to own his own home. From 1919 to the beginning of 1922 these loans totalled 26,714,000 francs, and have resulted in the construction of several thousand small houses. The movement has been gathering momentum through 1922, but figures are not yet available.

Belgium. If I were awarding a palm for the greatest housing accomplishment in proportion to population and in spite of war-created difficulties, it would go to Belgium.

The housing work in Belgium is admirably organized with a strong central agency, the *Société Nationale des Habitations à Bon Marché* (which is not a society at all, but a government housing office) working through local housing societies, whose function is to build and manage workingmen's houses. An interesting balance is kept between national and local, public and private. All this was created by a legislative act of 1919. The *Société Nationale* came into being in the spring of 1920. The local societies, to the number of 197, have been created since, on local initiative or as a result of national stimulation. Some have built, some are building, some are still in the stage of making plans. At the close of



Semi-detached cement block houses with red tile roofs built for its workmen by the French Railroad Company of the North, outside the completely ruined city of Lens.



WINTERSLAG COAL MINING COMPANY, GARDEN CITY, NEAR GENCK, BELGIUM.
Officer's house to the right. Miners' cottages (semi-detached) to the left.

1921, 7539 new dwellings had been completed, and about twice that number have been built during 1922. Figures are not available for the number of houses under construction or planned. To make these numbers comparable in proportion to population, they would have to be multiplied by five for France, six for Great Britain and fourteen for the United States.

The characteristic housing activity in Belgium before the war had been through loans to workingmen by the General Savings Bank (*Caisse Générale d'Épargne et de Retraite*) by means of which over 60,000 workingmen had become homeowners. Since the war these loans have continued, but owing to the high cost of building, they have been mostly in cases where the workingman took advantage of his high wages and the disgust of his landlord over rent-restriction, to purchase the house he was living in. They did not, as a rule, represent new construction. The government has recently (August, 1922) increased the maximum amount of permissible cost of a house for which loans could be granted, to 25,000 francs in the larger centers of population. Even before this was done, 3000 workingmen became house-owners through the help of loans from the Savings Bank in 1919, 6,600 in 1920 and 5,400 in 1921.

Italy. Turning to Italy, whose hous-

ing work has attracted less attention in the United States than it deserves, we note that, with government assistance, a *two-and-a-half billion lire* program is being carried out. (Something over half a billion dollars at normal rate of exchange, or 125 millions at current rates). As a result, a few cottages and garden suburbs are going up, and many thousands of apartments. Activity centers at Rome, but is not confined to the capital city. As nearly as can be estimated (exact figures are lacking), the post-war construction, finished or underway, will total about 40,000 dwellings.

Anglo-Saxon housing reformers may disapprove of multiple dwellings, but no one can deny the excellent quality of the new Italian apartment houses, whether from the structural, the sanitary or the aesthetic point of view. The extensive use of grass and shrubbery in the court yards and of flowers in window boxes is a particularly attractive feature.

Holland. Holland, of course, has had an easier problem than her neighbors. She has had no war-devastated regions to rebuild, no war taxes to pay. Her currency is at par. It is only natural that she should have come nearer than any of the other countries mentioned to solving her housing problem. This is not to deny that she deserves high credit. Judged by the same standard, we ought to

be measurably near the goal ourselves, but, alas, we are not.

Here is what Holland has done. From 1915 to 1921 inclusive, she built, with government assistance, 129,042 dwellings, and the estimate for 1922 is 45,000—in all 174,000; or if to facilitate comparison with other countries, we deduct the houses completed to the end of 1919, we still have an output of about 107,000 dwellings in the last three years. According to a housing census made in 1919, that will still leave a shortage of some 57,000 dwellings. But with the momentum already acquired, the extinction of that shortage may surely be said to be in sight.

The population of Holland in 1920 was only 6,841,155—not much more than that of the City of New York. To have equalled the Dutch performance in proportion to population, Great Britain would have had to produce during those three years 642,000 dwellings, or three times as many as she actually built, and we in the United States would have had to construct no less than *one million six hundred thousand*. And we think we are hustlers!

If Holland can keep the pace till the qualitative need is relieved as well as the quantitative, she will indeed have established a world record.

COMPARATIVE COST OF BUILDING.

It is well understood by now that the rise in building costs was a world-wide phenomenon from which neutral nations suffered as well as belligerents. Among belligerents, those suffered most who had the lowest rate of exchange. Moreover, the high peak came at approximately the same time everywhere. We thought our inflated prices collapsed because of the revelations made before the Lockwood Committee, and surely they must have helped. In England, prices took a sensational tumble when the Minister of Health announced a halt in the government building program, and the causal relation between the two phenomena can hardly be questioned. Yet similar, if less sudden, drops were taking place in France and Belgium and Holland, where these incidents could have had no appreciable effect.

Thus in England in 1914 a cottage could be built for £250. At the end of 1920 it cost £1100. It can now be built for about £400.

In Holland, a workman's cottage could be built before the war for 2000 florins (about \$800). At the end of 1920 it cost three and a half times as much. It has now dropped to about twice the original figure, or 4000 florins.

These figures are very like ours in the United States, except that our highest peak came a few months earlier.

So did that of France (July, 1920) when building costs were five times those of 1914. The present coefficient is between two and a half and three. Thus the pre-war 6000-franc cottage soared to 30,000 francs, and can now be built for about 17,000 or 18,000.

The Belgian experience is very similar to that of France, but the peak and present cost are both a little higher. The Belgian rate of exchange has also kept close to that of France, but generally a little lower.

In Italy the pre-war cost in well-built apartment houses was 1500 to 3000 lire per room. Now it is five or five and a half times as high, or from 9,000 to 15,000. At the highest peak, prices rose to six times those before the war.

No one expects building costs to get back to pre-war levels. The difficulty is to guess right at what point they will become stabilized.

MODE OF FINANCING

Almost everything that is being done in the way of housing is being done with government aid. The only exception that I have been able to find is in France, where some of the leaders of the mining and metal industries have established a credit society disposing of a hundred million francs, which is lent at market rates to employers in those industries who wish to build homes for their work people and who are unable to secure a loan from the government. This organization bears witness to the initiative of the leaders of French industry. But it stands alone and has had, so far no imitators.



MUNICIPAL SMALL HOUSES, ROTTERDAM
Dahlen, Architect.

With this exception, how is working-class housing financed?

We cannot go into details, but must content ourselves with enumerating the main features, country by country. Note the similarities and the differences. It should be stated, once for all, that in no country is the housing subsidy accepted as a permanent policy. It is an emergency measure, called forth by abnormal building costs, and in some countries it has already nearly reached its term.

Great Britain. Nearly all the work has been done by the local authorities. These pay minimum market rates for their money, whether they get it from the national government (Public Works Loan Commissioners) or raise it by the issue of local housing bonds or borrow it from banks. Plans, costs and rents have to be approved by the Ministry of Health. Rents are based on the rent of similar houses built before the war. The difference between this rent and the economic[†] rent is covered by annual subsidy. Of this, the local authority contributes no more than can be covered by a penny in the

pound rate,[‡] while the national treasury makes up the remainder. Note this undetermined amount for which the nation has signed, so to speak, a blank check. It is this feature which has called the halt in the building program. There has been much exaggeration as to what it is going to cost. The Geddes Committee estimate of £10,000,000 a year for 60 years, which has been widely quoted, is based, as has been pointed out by Mr. Aldridge, Secretary of the National Housing and Town Planning Council, on the suppositions that all the dwellings are being built at the high-peak price of £1100 each, and that all the money borrowed was for 60 years without a break at 6 per cent, neither of which is true. Even if the estimate were correct, it might be argued that national health and industrial peace would be cheap at the price.

Nevertheless, the desirability of accomplishing the same results in a more economical manner seems obvious. The division of responsibility appears theoretically and practically unsound. Since the

[†]The term "economic rent," as used in European housing literature, means, not the commercially profitable rent which will induce investment, but the at-cost rent which will enable the house to pay its own way without expense to the tax payer.

[‡]For the benefit of those to whom this phrase is not clear, it may be stated that "rates" are the nearest British equivalent of our local taxes, but instead of being levied on the capital value of real estate, as with us, they are levied on its rental value. One penny in the pound or 1/240th part of the rental value, is a very small tax levy.



MUNICIPAL HOUSES (POURED CONCRETE), ROTTERDAM.
Hulsebosch, Architect.

local authorities are building and managing the houses, they should be able to count on a definite amount of national help, and beyond that should be responsible for the deficit. On the other hand, prices have now fallen to the point where it would seem that an economic rent must be nearly, if not quite, attainable.

France. Government subsidies in France are given in two forms—a direct capital subsidy not to exceed one-third of the cost of the housing project, and an interest subsidy covering the difference between 2 or 2½ per cent and what the Savings Bank or Bank of Deposits, which make the loans, are in the habit of receiving. The builder may be either a limited-dividend housing society (corresponding to the British Public Utility Society) or an *Office Public des Habitations à Bon Marché* (corresponding to the British local housing authority). There is also an indirect subsidy (this is part of the permanent housing legislation) in the form of tax exemptions for 15 years (formerly for 12 years). Subsidy and loan together cannot exceed 85 per cent of the total and are dependent on two-thirds of the dwellings being rented to *familles nombreuses*,—those having four or more children under sixteen. The total

national expenditure for loans and subsidies is limited for the present to 300 million francs, and as a matter of fact, existing need for economy is such that only a small part can be made available at any one time. Competition for that amount is very animated, and the volume of accomplishment will be necessarily small until the devastated regions are rebuilt, reparation questions settled and a balanced budget secured.

Italy. In Italy the government subsidy is wholly an interest subsidy. The National Credit Institute for Coöperation has lent 130 million lire and the Bank of Deposits over a billion lire for housing during the last three years. The housing society, which is the borrower, may have to pay only 1.60 per cent for 50 years for interest and principal, while the government pays 3 per cent to make up the difference between that and the rate at which the money is obtained. No more money can be lent now without further legislative action, but this is expected to take place. The present charge to the treasury is 73 million lire a year. But this is probably less than the government would have had to spend in increasing the salaries of its employees if it had not gone in for housing instead. And there can be no

doubt that more good is accomplished in this way. The actual building is done by societies, mostly coöperative, though some are philanthropic or governmental. Some building is also being done directly by communes.

Belgium. The subsidy given is, as in France, of two kinds corresponding to principal and interest. The national government makes an out-and-out gift of not-to-exceed one-fourth of the cost. In addition it lends all the rest of the money necessary at 2 per cent. That is, it gives as a subsidy the difference between two per cent and what it has to pay for the money. Even then, it does not expect housing budgets to balance entirely, and offers to carry a share of the deficit, provided the provincial government, the commune, and the private citizens group, who must be represented in the local society, all lend a hand.

The amount available to the national government for subsidies has so far been limited to 175 million francs, but additions are expected to be made in the regular appropriations, year by year, and there seems little doubt that the housing program will be carried through substantially as planned. Belgium is fortunate in having an exceedingly able, energetic and influential man in the person of Senator Vinck at the head of the housing movement.

Holland. The Dutch housing work is done through housing societies, coöperative or philanthropic, and through city housing departments. The tendency here, as elsewhere, is for the relative importance of the municipal activities to increase. Up to 100 per cent of the money required is lent by the government at the current rate of interest of government obligations on the Amsterdam exchange—that is, at cost. Reasonable rent has been fixed for the present at $1/6$ or $1/7$ of the tenant's income. The national government shares with the municipality the difference between this and the economic rent. Before June, 1919, this sharing was on a fifty-fifty basis. Since then, the national government pays three-fourths of the deficit and the local government only one-fourth. Efforts are concentrated not

only on reducing costs, but on raising rents, as it is felt that many workers, with their increased wages, could really afford to pay more if they realized the importance of better houses. Falling building costs have permitted the national government to require that the rent charged in the newer houses should be increasingly near the economic rent. Since November 1, 1922, new houses must be planned to bring in 90 per cent of the economic rent. And there are provisions for a gradual raising of all rents, which will extinguish the subsidies long before the expiration of the fifty years which they would otherwise have to run.

In 1921 the nation's annual outlay for rent subsidies amounted to 8,332,081 florins (\$3,416,000). There was also a considerable flat subsidy to private builders of middle class houses. At the highest, it amounted to 2,000 florins per dwelling, but it has now been reduced to 300. This is not a sufficient incentive to the speculative builder. So the general understanding is that middle class building is at an end for the present. The limitation of rent subsidies to 10 per cent will slow up the working class building, but will not stop it. Rotterdam and the Hague have nearly reached the goal of building houses for which an economic rent can be charged. Amsterdam is in a more difficult position because of the excessively high cost of land there, most of it being made land on a foundation of piles.

It would be interesting to know which government system costs the tax payer least per dwelling, but it is almost impossible to find out, for one must consider all the contributions of public bodies, national, provincial and local, and one ought in fairness to take account of tax exemptions, whose cost to those who do pay taxes can only be guessed at. Moreover, the unit cost of a house depends so much on the date at which it was built that one is dealing with ever-shifting figures.

Theoretically, the English and Dutch systems are similar, since in both cases we find a rent subsidy system in which the city takes part, but the nation does most. In practice, it seems to me, the

Dutch system has worked more smoothly, and the cities have contributed proportionately more. Both countries have been drawn into subsidizing private builders in a manner somewhat expensive to the tax payer and of doubtful value to the public. In both countries this feature is now at an end. Of course the great number of unemployed in England has made it impossible to raise rents as much as has been done in Holland. On the other hand, had Great Britain carried out its housing program on a scale proportional to that of Holland, the number of unemployed would have been greatly reduced.

The three Latin countries resemble each other in paying interest subsidies, which after all amount to much the same thing as rent subsidies, except that it is easier to increase rents gradually than to reduce interest. Italy gives no subsidy as to principal. Both the others do.

ARCHITECTURE.

Experimenting in building materials is largely at an end. Red bricks and cement blocks with or without stucco covering, divide the honors. Red tile roofs are largely in the ascendant. Floors are of oak or pine, except in Italy, where they are generally of tile. The living room is sometimes tiled in the other countries. Scullery and laundry floors are tiled or cemented.

With trifling exceptions, Great Britain is building only one-family cottages. This is also the favored type in France, Belgium and Holland; but in large cities multiple dwellings are considered necessary. In Italy they are preferred.

As to architectural style, allusion has already been made to the wide and beneficent influence in Great Britain of Mr. Unwin's work. On the continent also it has been carefully studied and has undoubtedly exerted great influence without being slavishly imitated. Each country, and indeed each region, jealously preserves its own historic types of village architecture, while borrowing ideas freely from the English village in grouping, layout and sanitation.

French, Belgian and Dutch garden villages differ from each other and from the English, but the best of each is very

charming, and a certain (even if remote) family resemblance connects them all. Italian garden suburbs on the other hand are quite different in conception and indeed in purpose. They are middle class rather than working class developments and are wholly *méridional* in architecture. Instead of the familiar one-and-a-half story cottage in pairs or rows or groups, we find a two-and-a-half story detached villa with a still-higher belvedere, though the villa may sometimes house several families.

Of the high quality of the French and Italian apartment houses, I have already spoken. Something I like very much about the Belgian apartment houses which I have seen is that they do not go above four stories. This also seems to be true of recent Dutch houses.

Architectural styles are conservative, except in Holland, where an ultra-modern school has arisen, especially at Amsterdam, which is stirring the imagination of the younger men and women to great enthusiasm. It has left cottage architecture reasonably alone so far, for which I cannot but be grateful, for Dutch cottages are altogether delightful just as they are—with their red brick walls and their red tile roofs and their brilliant touches of green or orange, lined with black, on doors and shutters.

Whatever we may think of modernist architecture, it is a sign of abundant life. Under its ferment is a wonderful mass-movement—the claim of the toilers to health and happiness—the response of society. In reply to it, not tens of thousands, but hundreds of thousands of well-planned cottages are going up in Western Europe to make homes—real homes—for the people—with roses by the front door and cabbages and turnips in the garden plot, with schools and playgrounds and tennis courts, with movies and health centers and libraries and parks.

We shall wake up some morning and see clearly that the children of workingmen in Western Europe are being born in better homes and among pleasanter surroundings than the workingmen's children of America. And then perhaps we will do something.



Fifth Avenue Association Gold Medal Award

The United States Mortgage & Trust Company was awarded first prize by The Fifth Avenue Association of New York for the best building erected in the fifth avenue section in 1922. The prize, a beautiful gold medal, was given in recognition of the company's recently completed bank building at Madison avenue and 74th street, formal presentation being made at the association's annual dinner at the Hotel Waldorf by Mr. Will H. Hays, toastmaster, to Vice-President Henry L. Servoss, representing the trust company.

The architecture, in the style of the late English renaissance, is simple yet dignified and distinctive. The plans were prepared by Mr. Henry Otis Chapman, of New York. The building is considered one of the finest and most modern banking structures in the country. Much of the work of supervising the construction was in charge of Henry L. Servoss, vice-president of the United States Mortgage & Trust Company. The cornerstone of the building was laid just over a year ago.

As a complete banking unit the new building contains practically everything needed in the way of comfort, convenience and safety. Modern devices have been installed throughout. The United States Safe Deposit Company's vaults, which occupy a part of the basement, embody all of the latest features, such as combination emergency door and forced air ventilation in the main vault.

To meet the needs of women clients of the trust company, the new branch is equipped with a special Ladies' Department in charge of Mrs. William Laimbeer, assistant secretary of the company. This de-

partment is provided with a special section of the main banking floor, which contains a rest room, retiring room, in fact, a whole suite, done in the most attractive manner. One striking feature of the decorations of this department is the Adam mantel forming the center around which the ladies' room is furnished. This mantel came from an old house in St. James street, near the Palace, in London.

The officers' desks are located at the southern end of the main banking room, looking out upon 74th street. The rest of this floor is given over to the tellers' cages, which are all finished in solid bronze. On the mezzanine floor are the accommodations for the girl employees.

The second floor is divided into several parts, one of which contains the kitchen and lunch room to be used by the employees. The main working space for bookkeeping is located on the second floor and is extremely well lighted and ventilated. It is connected with other parts of the building by telephone, telautograph, and pneumatic tube system.

The single design for a church by Jefferson, that of the Episcopal Church in Charlottesville, demolished about 1895, has hitherto been known to the profession only by literary reference. His grandson,

A Church Designed by Jefferson

Thomas Jefferson Randolph, wrote to Jefferson's biographer, Randall: "He drew the plan of the Episcopal Church in Charlottesville." Bishop Meade, in his "Old Churches, Ministers, and Families of Virginia," wrote in 1857:

"The plan of the Episcopal Church was furnished by Mr. Jefferson, and though far from being the best, is much better for the purposes of worship and preaching than most of those



EPISCOPAL CHURCH IN CHARLOTTESVILLE, VIRGINIA.
Designed by Thomas Jefferson.

which now come from the hands of ecclesiastical architects, who, if hired to injure the voices and energies of ministers, and to frustrate the purposes for which temples of religion are built, could not have succeeded much better than they have done by their lofty ceilings, their pillars, recesses, and angles, besides the heavy debris into which they have led their employers. The church at Charlottesville has been recently enlarged and much improved."

Contemporary letters and descriptions make it clear that the building was begun in 1824 and completed in 1825.

When the folio work "Thomas Jefferson, Architect," was published, no view of the old church could be found, but one belonging to

Miss Emily Duke has now been called to attention by Mrs. Edward Walton. It shows the church with the additions mentioned by Bishop Meade, which we cannot doubt to have been the belfry and the wing at the rear.

The main body of the church is an interesting example of Jefferson's later style, based on the temple. The fundamental idea of adapting the temple form to modern practical uses had been his, in the Virginia Capitol, 1785, and in the University of Virginia nearby, 1817, but its use for churches had already begun elsewhere before the Charlottesville example, for instance, in St. Paul's, Boston, in 1820.

As always with Jefferson, Roman forms retained the preference, although the Greek re-

vival had already long begun in the work of Latrobe. There is much of the austerity and sturdiness of Chalgrin's St. Philippe du Roule, which Jefferson had known in Paris. Simple as the façade is, it is full of dignity and rhythmical proportion. Perhaps not a bad model, even now, for our ecclesiastical architects.

FISKE KIMBALL.

The Summer School at Fontainebleau

The work so well begun by the late Lloyd Warren in connection with the three-month Summer School at Fontainebleau for American architects, painters and sculptors has met with encouraging appreciation from the professional schools throughout the country, according to Mr. Whitney Warren, who is chairman of the American Committee for the architectural section. It is hoped that the enrolment, limited to 100 pupils, will be completely filled, and the scheme can hardly fail to have the most gratifying and far-reaching results.

It would be difficult to find a more delightful or inspiring *entourage* for such a school. Fontainebleau itself, 37 miles from Paris, has for generations been the chosen haunt of French landscape painters, and the famous Forest is perhaps the most beautiful wooded tract in France. The Palace, in one of whose wings the studios will be located, was designed and built by Gilles de Breton for Francis I, about 1500. From Benvenuto Cellini, Court Jeweler and Goldsmith for a time at the Palace for Francis I, down to Corot, Millet and Rousseau, leaders of the Barbizon school, great names in the fine arts and in statecraft, great kings and emperors, have played their part in and around Fontainebleau and have left an indelible mental and physical imprint upon the Palace and the surrounding country. With such surroundings, saturated with the history of the past, he would be but a dull student who did not feel a quickening inspiration, and who did not bring back with him to America many ineffaceable memories, together with an enhanced capacity for good work in his future profession.

There is no more satisfactory a basis for a good thesis nor for a good book than the statement of an indisputable and all-embracing fact. It matters little in what manner that fact is related to

cepting that considerations of its Protean expression may differ in the relative importance of its phases. Such a fact and its evolutions, developed coherently, places Mr. Claude Bragdon's "Beautiful Necessity" upon a sound foundation and any exceptions taken to his deductions can be relegated at once into the realm of personal opinions rather than of confuting arguments.

Mr. Bragdon, in his admirable conclusion, says that "Facts are not useful to establish a hypothesis, they are used rather to elucidate a known and accepted truth."

The fact upon which his book is based is also a known and accepted truth.

Simply stated it is this, the Arts are of man's production and therefore a part of him, and man is the product of and a part of the universe. Its laws apply to him and his work, violation of its laws are unproductive, futile and transitory, and antagonistic to the serenity which is coincident in the Beautiful Necessity of obedience to Nature's Laws.

There is in all men, to a greater or less extent, an inherent appreciation of these laws, and the results of violation are to him erratic, undesirable and monstrous. Lawlessness is negative. Beauty is born of wise acceptance and positive obedience.

As Mr. Bragdon states, "Art is at all times subject to the Beautiful Necessity of proclaiming the world order."

He elects to use as his medium of exposition of the truths of that order Theosophy, the knowledge of God, of the Self of which "Art is the expression in terms of sense" and the unique value of his work is that he deliberately passes over with a mere recognition of the fumbling, empirical experiments of the growth of architecture by construction, and analyzes acknowledged achievements as best exemplify the world order.

The choice of Theosophy as a medium has not only provided Mr. Bragdon with a consistently simple and excellent classification for the manifestations of the world order, but it has enabled him to treat his subject from the highest plane, that of the "Unity of science, art and religion," as shown in the ultimate efforts of man. His conception deals with permeating spirit as transcending and controlling material expression yet being of necessity in harmony with it. It is idealism which grows from, but transmutes materialism. Therein is its greatest value, and its greatest evangel.

The consecutive statement of the integral subdivisions of the Unity is convincing and logical and as it enters the realm of "Changeless Change" is of its very nature subject to differences of interpretations and of opinions which

The Beautiful Necessity

life by analysis or by exposition, ex-

have been disposed of as little account.

Idealism, especially that of religious fervor, often searches into unknown vistas through mysticism, as science does through speculative research. It is the assumed mystic derivations of practical exigencies which at times fail to be convincing in some of Mr. Bragdon's illustrations, such as the use of the Vesica Piscis in the plans of cathedrals of which the actual building has extended over many years. It is possible and natural to read into masterpieces of the past attributes which may not have occurred to the builders. It would be interesting for instance to ascertain the effect of earthquakes upon some of Mr. Goodyear's careful computations of the subtlety of medieval false perspective, but after all these are minor considerations, and in no way affect the fact that any order is better than no order, and that acknowledgment of the world order is coincident with beauty. Arithmetic and Geometry are merely an analytical statement of the elemental expressions of order. Mr. Bragdon has performed a distinct service in laying stress upon Duality or Polarity, which he considers is more than mere contrast. A decision which depends upon the definition of contrast.

When the historical facts in relation to architecture are related to the thesis, there must of course be differences of opinion. That the Greek architect was at liberty to improve on the work of his predecessors is undoubted, in fact he considered it his duty so to do, but that he was unhampered by tradition until the time of Iktenos is not the opinion of M. Coulange in his *Cité Antique*. The debt owed by Greece to Egypt is comparatively small, as its artistic stimulus came from the Ionians.

Nor was the Greek sensitive to the unity of scale, excepting in the individual object, as the temples at Girgenti and elsewhere testify. In the wish to find the masculine and feminine elements in architectural factors, the examples are sometimes confusing, the interpretation being influenced by the desire. For instance, why is the lintel IN and the horizontal abacus YO, except in its relation to the echinus? And why is neutrality attributed to the arch "which never sleeps?" It represents the intermediate between the vertical and the horizontal and seems to demand some other term, perhaps YOIN or INYO, as the third member of the trinity.

The chapter upon Changeless Change; Consonance, Balance, Rhythm and Radiation is admirable.

That upon the Bodily Temple is the natural result of the Theosophic point of view. It is full of imaginative conceptions, some of which are indisputably true, others, such as the comparison of the human figure in profile with

Giotto's Campanile and the Parthenon column are far-fetched. But the Rosicrucian mystics transfused the lifeblood of their religion both by symbol and suggestion into the entity of their work, and by so doing, raised it to a much higher plane than that which, while it obeyed the world order, lacked the spiritual imagination which is the ultimate flower of man's achievement. To read into stones and mortar the aspirations, the dreams, the convictions of man's brain, whether they be fantastic or inspirational, is justified by the noble intention, and to consciously image these aspirations is the crowning achievement in Art. The first Art is of the Earth, the last is a living Spirit.

Mr. Bragdon's book is full of felicitous statements. "Music and Architecture alone of the Arts are creative, the other Arts are re-creative."

"The differences between Music and Architecture are those which exist between time and space."

"Art is idealized creation."

"Supreme architectural excellence is fitness, the perfect adaptation of means to ends and the adequate expression of both."

"For enjoyment it is not necessary that meanings should be fathomed—it is only necessary they should be felt."

"Art is the method of nature carried into those higher regions of thought and feeling which man alone inhabits."

"A happy inspiration is worth all the formulae in the world."

It is well that the "higher regions of thought and feeling" should be called to the attention of the reader and placed in their rightful position at the apex of the structures of Art; especially well, at this day of disorderly phantasmagoria, that they should be shown to be thoughtful and willing servants and thereby become supreme casters.

It is well to ennoble the conception of Architecture by placing it upon its pedestal of being one of the crowning creative achievements of man, that it should be approached and matured with reverence and that no ardent study nor persistent effort is too great to be devoted to it.

It is because Mr. Bragdon's book is so cogent a statement of the means by which attainment may be reached, that it is worthy of his subject and his profession.

C. HOWARD WALKER,

Mr. Irving D. Harris, architect, has opened an office at 304 City National Bank Building, Galveston, Texas. He will be pleased to receive manufacturers' samples and catalogues.

**Two
Belgian
Views of
American
Architecture**

The Société Centrale d'Architecture de Belgique recently celebrated its fifth anniversary by organizing an international exposition. All the European countries sent delegates; Japan was represented by Matsuichi Doi Miura and Washio; Uruguay by Belloni Gadia, and the United States by Cass Gilbert, Francis R. Allen, Glenn Brown, William Rutherford Mead, and George Oakley Totten, Jr.

An exhibit of several hundred plans, drawings and photographs from the United States illustrated the evolution of architecture in America during the last forty years.

Commenting on the exhibit, Sander Ferri, the art critic of *L'Indépendance Belge* called attention to the remarkable degree to which trans-Atlantic architecture had been influenced in design by French, Italian, Flemish, and English art. "The typical examples offered—palatial residences, hotels, capitols, banks, churches, city halls, and country houses, factories, hospitals, universities, stadiums, lighthouses, and department stores—because of their tremendous proportions arouse a sense of amazement in Europeans, for as a rule they far surpass in size even the largest edifices of the old world."

Yet one can scarcely say that Americans have developed a characteristic type of building; nor can one discern in anything they have produced a development of lines and forms which will ultimately give rise to a new style in architecture. Their buildings are a composite of all styles, a mixture in which the elements are not blended. American architects borrow generously from antiquity, from the Romans, from the Renaissance, from the eighteenth century, from the architecture of the Empire. First and last, it is the Gothic which occurs most insistently. Everything that they build possesses a certain power, often well balanced, always audacious. Their edifices show slight inventive faculty, and even less sensitiveness. In short, "American architects are builders, not artists."

Another Belgian critic writes in the *Brussels Gazette*: "We Europeans are wont to find fault with American buildings; we persistently refuse to see any beauty in them. Certain it is that skyscrapers, carried to an extreme development, as they have been in the New World, give a severe shock to the traditional tastes of Europeans; and in an Old World setting, they would undoubtedly

present a grotesque and deplorable sight. In the United States they are amply justified. In fact, of late years they have become a distinct style of building, which has secured a firm position for itself through sheer originality. The skyscraper genre moreover has learned how to adopt decorative motifs which save it from the heaviness of its first expressions. New York's enormous Municipal Building, for instance, with its crowning tower, is really a regal structure. Of the same lineage are some of the new hotels, notably the Traymore in Atlantic City, which recalls the palaces of Babylon and Nineveh.

"But in addition to these buildings of a utilitarian character, American architects have to their credit palaces, temples, and stadiums where the inspiration of classic art is clearly discernible, in their admirable proportions, elegance, and artistic feeling. It would be difficult to conceive of anything surpassing, either in simplicity or decorative effect, the Massachusetts Institute of Technology, its magnificent colonnades reflected, as in a fairy phantasy, in the lake beside which the structure rises. Here, too, is a temple designed by a New York architect, in Romano-Byzantine style—and it is of that gem-like perfection which only a few buildings in the world have attained."

Among the exhibits were the drawings of the new Library for the University of Louvain, designed by Warren and Wetmore.

Mr. Arthur T. Remick, architect, announces the removal of his office from 52 Vanderbilt Avenue to 135 East 43d Street, New York City.

Mr. Joseph Weston, architect, is now located at 515 Hollywood Security Building, Hollywood, Cal., and will be pleased to receive manufacturers' samples and catalogues.

The co-partnership formerly existing between Robert L. Kane and Monroe R. Sandel, architects, 64 W. Randolph Street, Chicago, Ill., has been dissolved. Mr. Sandel is now associated with Mr. Arthur Foster, Room 608, 56 East Randolph Street. Mr. Kane will continue at the old address.

The partnership existing between Messrs. Duncan & Barron has been dissolved. Mr. C. Errol Barron has established his own office in the Guaranty Bank Building, Alexandria, La. Mr. Duncan will remain at the old address.

The
ARCHITECTURAL
RECORD



MARCH

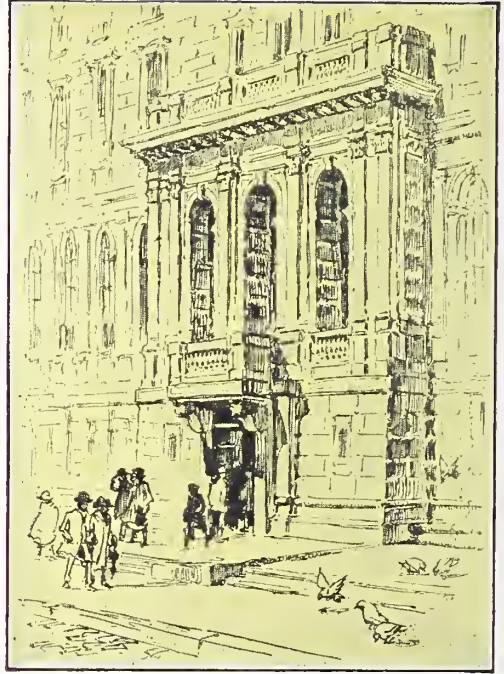
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THE TEN MURALS EXECUTED BY ALLEN TRUE
FOR THE VOORIES MEMORIAL AT DENVER,
COLORADO, DEPICT THE FAUNA OF
THAT STATE AND ARE REMIN-
ISCENT OF GREEK VASES IN
TREATMENT AND
COLORING









The ARCHITECTURAL RECORD

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MARCH, 1923

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The DENVER CIVIC CENTRE



By Theo Merrill Fisher

WE find the beginnings of the Denver Civic Center coincident with the organization of "The City and County of Denver" which was effected in 1904, when half a dozen smaller, adjoining municipalities were consolidated with Denver proper. This administrative unification of what had in all other ways been practically one community, stimulated a finer civic spirit, which was provided with many avenues of concrete expression through the new charter. One of these was the Art Commission created by the charter. Provided with powers subject to very broad interpretation, this body was free to function in a constructive rather than a merely critical way, and under the chairmanship of Henry Read, a Denver artist, it at once set about the planning and actualizing of a "Greater Denver," which would be in point of controlled develop-

ment a reflection of a proper understanding of the utility of beauty in the life of the growing city.

With this large conception of its function, the Art Commission soon found that the advice of an expert was needed and in the following year arranged to have Charles Mulford Robinson survey the entire situation and make a report on "Proposed Plans for the Improvement of the City of Denver." While the usual problems of new city platting, streets and boulevards, parks and play grounds, and the like, were treated, the outstanding feature of the Robinson report was its recommendation for a civic center. Henry Read had given the first suggestion for such an enterprise, backed enthusiastically by Mayor Robert W. Speer, with the result that Robinson made definite proposals for actualizing the idea.

Of the Robinson recommendations we

need note only the contemplated acquirement for a civic center of the area two blocks wide and three long between the State Capitol and the County Court House. The first occupied a site on the newer city platting, which was laid out on compass lines, while the latter lay within the area of the old, original down-town section, which in this vicinity joined the other at an angle of forty-five degrees. The failure to reconcile the discrepancies in relative position among these buildings, which would be terminals of the principal axis of a civic center so laid out, eventually led to the abandonment of the Robinson scheme; it had, however, in the interval served the useful purpose of focusing public attention, and formed the basis of subsequent planning.

We should now go back to the relation of the State Capitol to the entire matter. Although dating from a period when official architecture was far from handsome, it has the interest given it by its mass and its situation on the slight elevation east of Broadway. The superb view of the Front Range Rockies from its western portico was largely spoiled, however, by the immediate neighborhood as it was at that time, a variegated assortment of ancient dwellings, a large power house and a fire department station occupying the foreground. To establish the legitimate dominance of the Capitol and clean up this conspicuously unlovely section, were primary objects in all that followed in planning for a civic center.

Actual work on the project awaited the arrival of Frederick MacMonnies, who came to Denver in 1907 in connection with his execution of a commission for the "Pioneer Fountain." The site for this lay within the bounds proposed for the Civic Center, so it was quite natural that his advice should be sought about the larger problem.

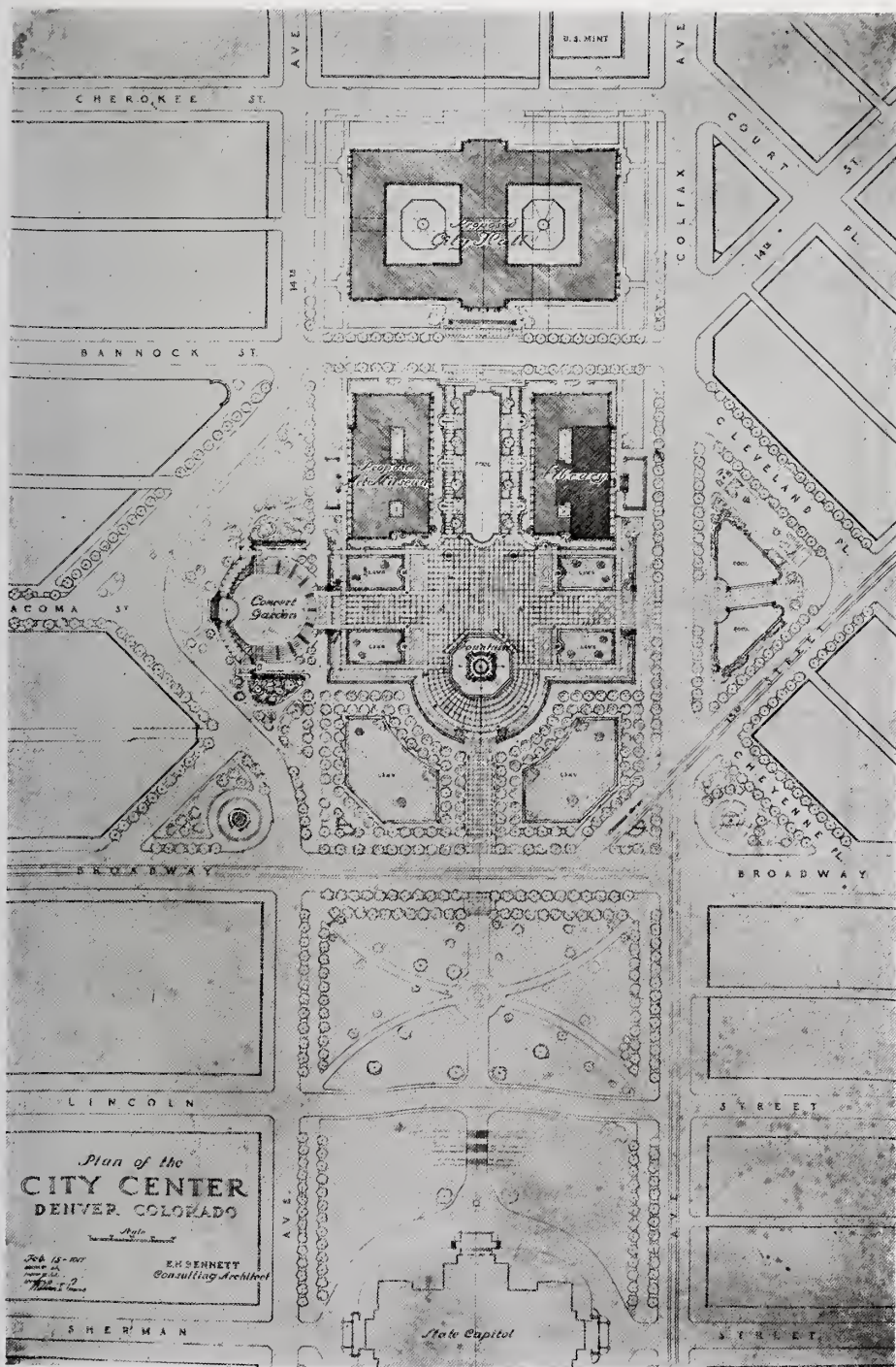
MacMonnies quickly saw that the only feasible solution of the difficulties inherent in the conflict of city plattings, was to change the axis of the Civic Center scheme from that established by Robinson, to a line directly west from the Capitol, and so bring the latter into proper relation to it.

Now follows a five year period in which the details of the MacMonnies plan were debated, approved, and the land for the Civic Center acquired. The objections to bonding the entire city to pay for the site were met by making its improvement a part of the East Denver Park District development program. The bond issue for this was finally sold in 1912, after long-standing litigation on the part of property owners and others; of the total expenditures, something like one million eight hundred thousand dollars was used for acquiring the thirteen acres of ground for the Civic Center.

Immediately subsequent stages of progress included the clearing away of the old buildings on the area and its landscaping after plans of Frederick Law Olmsted and Arnold W. Brunner. These men established the general pattern of walks, lawns, tree planting, and ornamental lighting.

What would otherwise be a delightful night scene is now largely spoiled by excessive illumination. Denver would save materialiy and greatly increase the impressiveness of the Civic Centre by reducing the number and power of the lights used.

The Civic Center remained in this open plaza state until Speer again became Mayor in 1916. Denver people had seen that very little was being accomplished in pushing this community undertaking to completion by those who followed him in office since 1912, and this was a prime factor in seeking Speer's leadership again. Prompt action was forthcoming, as E. H. Bennett, the landscape architect of Chicago, was soon summoned to Denver to perfect a plan on which all could agree. His proposals and the subsequent developments are made clear by the reproduction herewith of his design, which is made the basis for discussion. To MacMonnies' recommendations he added a new and vitally important element in the establishment of a secondary, transverse axis, for the south terminus of which he determined on the placement of the first of the improvements which followed. This was the "Open Air Theatre and Colonnade of Civic Benefactors" which Mayor Speer





Architect's Perspective
William E. and Arthur A. Fisher, Architects



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General View
DENVER CIVIC CENTRE, DENVER, COLORADO
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had long contemplated as one of the adornments of the Civic Center. It should be noted that one of Speer's thoughts as mayor was to inoculate wealthy citizens with the idea "give while you live," and so to beautify Denver with museums, fountains, ornamental gateways, statues and other examples of civic art.

The names of such donors, together with those of others who had made bequests for like purposes, were to be perpetuated by inscription in a special Hall of Fame to be called the "Colonnade of Civic Benefactors." This structure was unified, when later completed after plans of Marean and Norton, Denver architects, with the open air concert garden to be used chiefly for the summer programs of the Municipal Band. The joint structure has two semi-circular double colonnades which terminate in square pavilions, with a central pavilion or archway whose floor becomes a stage when the glass and bronze curtain background—to be noted on the plan—is lowered. Two murals by Allen True, a Colorado artist, adorn the curved wall panels at the inner ends of the colonnades. These, the gift of Mrs. Charles Hansen Toll in memory of her husband, depict "The Miner" and "The Trapper."

The special committee to which had been entrusted the task of determining the first list of names for the "Civic Benefactors" memorial and the particular form of commemoration, has recently arrived at a decision in the matter. The record will be made not with the usual bronze tablets, but with individual bronze letters attached to the enclosing walls of the Theatre section. Robert Garrison, the Denver sculptor, is to design the alphabet for this use. On the plaza near by have been placed two equestrian statues in bronze, the creation of A. Phimster Proctor; "The Bucking Bronco," the gift of J. K. Mullen and "The End of the Trail," that of Stephen Knight.

Bennett contemplated a minor architectural treatment of the Bates Triangle at the other end of the secondary axis, his plan showing only two ornamental pools. A really adequate balance for the "Open

Air Theater" was, however, made possible by J. H. P. Voories' bequest to the City of practically his entire estate. The "Archway or Entrance to the Civic Center" stipulated in his will as the object for which the funds were to be expended, has recently been actualized in the "Voories Memorial," an archway and semi-circular double colonnade in the same order and of the same gray, "Turkey Creek," Colorado sandstone, as the "Colonnade of Civic Benefactors." William E. and Arthur A. Fisher, Denver architects, were the designers. The site, like that of the "Open Air Theater," has been unified with the central Civic Center area by closing an intervening street on its direct east and west course and carrying it around. An oval pool on the inner curve of the colonnade is a part of the scheme; in it two green bronze water jets by Robert Garrison have been placed.

Originality of motive and simplicity and boldness of treatment characterize the series of ten murals which Allen True has lately executed for the "Voories Memorial." Colorado natural life has provided the subjects and so we find depicted in the smaller lunettes of the colonnades, the Timber Wolf, Porcupine, Beaver, Antelope, Mountain Lion, Coyote, Mountain Sheep, etc., and in the two larger lunettes of the center archway, the Elk and the American Buffalo or Bison. We show the Elk design in its architectural setting and both these last-named murals in the colors of the originals. Antique Greek vase paintings have, in treatment and coloring, been the direct inspiration of Mr. True's work here; three colors only, a stone gray, a terra cotta red, and a black having a hint of lavender in it, are employed. The smaller designs are in the lavender black against a terra cotta ground, while in the two larger murals the artist combined these tones in his rendering and employed the stone grey as a background.

Denver has long needed an Art Museum, and since Bennett made provision for one at the northwest corner of the Civic Center, as a balance for the Public Library, this site has been generally regarded as by far the most desirable. Al-



The Architectural Record

Open Air Theatre and Colonnade of Civic Benefactors
DENVER CIVIC CENTRE, DENVER, COLORADO
Marcan and Norton, Architects

March, 1923



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VOORIES MEMORIAL, DENVER CIVIC CENTRE, DENVER, COLORADO
William E. and Arthur A. Fisher, Architects

March, 1923



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Central Arch of Voories Memorial

DENVER CIVIC CENTRE, DENVER, COLORADO
William E. and Arthur A. Fisher, Architects



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Open Air Theatre

DENVER CIVIC CENTRE, DENVER, COLORADO
Marean and Norton, Architects

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Voories Memorial

DENVER CIVIC CENTRE, DENVER, COLORADO
William E. and Arthur A. Fisher, Architects



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Open Air Theatre

DENVER CIVIC CENTRE, DENVER, COLORADO
Marean and Norton, Architects

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Open Air Theatre
DENVER CIVIC CENTRE, DENVER, COLORADO
Marean and Norton, Architects

though too restricted to permit of material expansion from modest beginnings, the Denver Art Association now has in hand plans for a museum development which meets in a unique way, the conditions of site and contemplated growth.

As a west terminal of the principal axis and its proper closing, MacMonnies and all succeeding planners have anticipated the construction of a Municipal Building or group on the block west of Bannock Street. There has long been obvious need of replacing the old City Hall and County Court House, between which the municipal offices are now divided, with a common and more adequate housing. The site mentioned would in all practical ways serve admirably, and at the same time complete the Civic Center scheme in an impressive manner.

Although public opinion is clearly in favor of the project, selfish interests have been fighting it, and for a while it looked as if the opportunity to acquire the site

would be lost through the purchase of the land by those who recognized its value for office buildings. City officials, hitherto indifferent to the danger of delay, have in recent days been convinced of the need of decisive action to protect the public interest and have taken steps through condemnation proceedings to keep control of the situation.

Denver was a pioneer in the whole movement for city planning, as we generically term it, and its Civic Center is an outstanding example of noble ideals greatly accomplished, for it is much nearer completion than the similar programs of other cities, which for the most part are still in the "paper stage." It stands as a most adequate and fitting monument to the memory of Robert W. Speer, a city executive who in his career gradually became revealed as a civic leader of a type and kind very different from the usual politician.



"THE BUCKING BRONCO"
A. Phimster Proctor, Sculptor



The Architectural Record

South Elevation

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Frank B. Meade and James Hamilton, Architects

March, 1923

The RESIDENCE *of* WARREN BICKNELL, ESQ
— CLEVELAND, OHIO —

FRANK B MEADE & JAMES HAMILTON, ARCHITECTS
OLMSTED BROTHERS, LANDSCAPE ARCHITECTS.

By I. T. Frary

IN THE BETTER class of residences to-day there is an increasing tendency to emphasize the atmosphere of home, to make them more comfortable and to avoid the theatrical. The home of Mr. Warren Bicknell illustrates this tendency; it is commodious, to meet the requirements of a man of affairs; it is dignified, as befits his social standing; it is undoubtedly costly, yet is restrained and decorous, and is withal a comfortable place in which to live.

A most delightful location was chosen for it on the ridge which was formerly Cleveland's official eastern boundary. From below it stretches the solidly built up city, while to the east continues the great, new Heights residential district: yet it seems isolated, and the elevation and the setting of trees give to it a secluded, rural atmosphere. The commanding height and the spaciousness of the setting carry the eye over the roofs and the busy highway below, out over the city, and afford glimpses on a clear day of distant Lake Erie.

It is a marvelous site and one to which only a house of exceptional character and individuality would be suited. The Bicknell house seems to meet these demands. It has that rare quality of belonging and of having belonged always. Its lines are broad and simple, and its horizontal effect has been continued interruptedly in the wide stretches of open lawn with which it is surrounded and which afford a typically English setting for an English house.

The brick, stone and timber work seem to bear the mark of time, and there is a freedom in the way the brick is laid, the stone cut and the timber worked up that makes one feel that the designer knew what he wanted and had workmen who knew how to give it to him and to have a

good time doing it. The pattern of grey headers in the wall, the diagonal brick-work between the gable timbers, the grotesques that loll out from corners here and there, the sun dial and cartouche over the south porch and the little lighthouse in low relief beside it, these and other bits give a naïve charm that is delightful and refreshing.

The interior woodwork is dignified and effective; the plaster is roughly trowelled and, where ornamental, is modeled in very low relief; stone is used freely for mantel facings, floors, door casings and even for entire walls.

A sense of quiet and serenity is felt throughout the house, due largely to the soft tones in the color scheme. The rugs are all plain taupe, the plaster is unrelieved by color, the stone-work is buff, warm in tone, the oak and walnut of the trim are finished in soft tones that harmonize and it is only in the draperies, furniture coverings, pictures, tapestries and other accessories that accenting colors are introduced to relieve the monotone and give necessary life to the scheme. In the hall, brilliant crimson draperies lose themselves in the grey shadows; those in the living room are embroidered on a tan ground in richly colored patterns that harmonize with the deeper tones in the furniture coverings.

The hall is spacious, two stories in height, with a stairway running up one side to balconies which are carried around the other three. The fireplace end of the room is entirely of stone below the balcony; wainscot, stone and plaster are used elsewhere. The pierced and carved strap work of the stair and balcony rails is a dominant feature of the room, relieved by the introduction of an arcaded effect on the north balcony. The door to the vestibule has panels of glass, eight

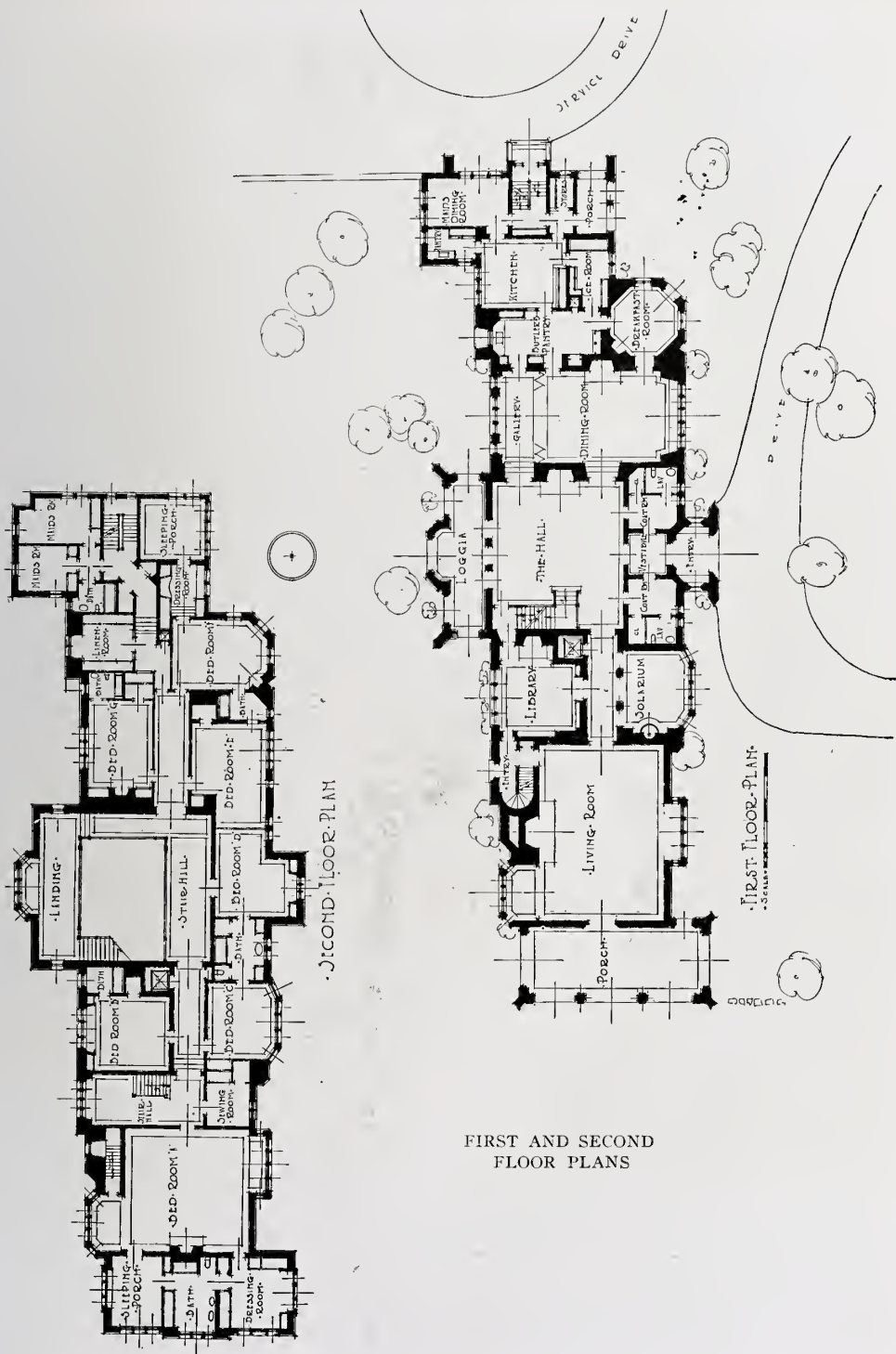


The Architectural Record

March, 1923

Main Entrance

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Frank B. Meade and James Hamilton, Architects



FIRST AND SECOND
FLOOR PLANS

The Architectural Record.

March, 1923

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Frank B. Meade and James Hamilton, Architects



The Architectural Record

View from Southeast

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Frank B. Meade and James Hamilton, Architects

March, 1923



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RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
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March, 1923



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March, 1923

Loggia at Side

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Frank B. Meade and James Hamilton, Architects



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Corridor

March, 1923

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
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March, 1923

Main Hallway

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Frank B. Meade and James Hamilton, Architects



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March, 1923

Main Hallway

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
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Living Room

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 Frank B. Meade and James Hamilton, Architects

March, 1923



The Architectural Record

Dining Room

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Frank B. Meade and James Hamilton, Architects

March, 1923

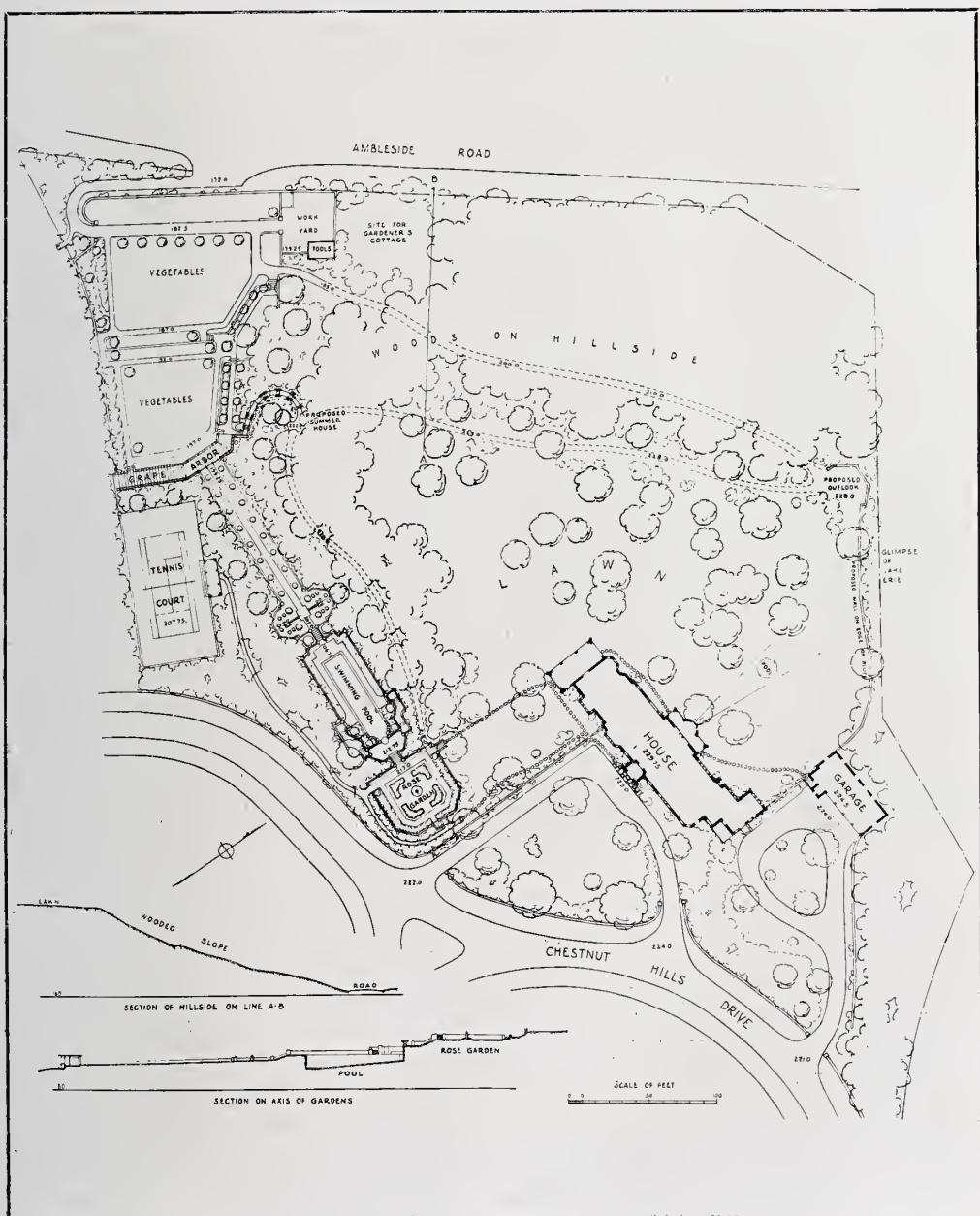


The Architectural Record

Library

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Frank B. Meade and James Hamilton, Architects

March, 1923



The Architectural Record

March, 1923

Plan of Estate

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
 Frank B. Meade and James Hamilton, Architects



GARDEN PATH

of which are leaded in patterns which reproduce the carved panels of the outer doors. Beside the vestibule are coat rooms which open into both hall and vestibule, providing an effective circuit for arriving and departing guests. Each has a connecting lavatory.

To the left from the entrance, a passage leads to the living room. On one side of the passage is the library and on the other a stone-walled solarium. The latter is separated from the passage by an arcade of stone and has a fountain and gold fish pool at one end. The library opposite is wainscoted to the plaster cornice with vertical walnut boards, broken by recessed open book shelves, and relieved by a single band of flat ornament which encircles the room and is continued around the door openings. The color scheme is a little livelier here than in the other rooms, to

harmonize with the brilliant bindings of the books.

A distinguishing feature of the living room woodwork is the crude form of linen-fold which is carved on door and window casings, on the mantel and on the arched panels above the openings. The walls, where not wainscoted, are hung with a fabric.

In the dining room richly modeled plaster ornament fills the space above the oak wainscot, and a strapwork design of unusual effectiveness and simplicity of line breaks the ceiling. Walnut furniture contrasts with the oak trim and the colorings of needlework embroidery on the chair coverings afford a final accent. The little breakfast room which opens from it has woodwork in ecru enamel, with fine lines of green emphasizing its mouldings, and linen curtains embroidered with richly colored ornament furnish the cheerful note that such a room requires.

Brick has been used effectively in the basement billiard room and a simple scheme of ornamental plaster worked out in the third floor ball room.

So far as the exterior is concerned, the house has already attained that air of permanency, of belonging, that is so desirable in a home. The interior when photographed was still somewhat incomplete as to its furnishings. It is as a whole most successful; there is an avoidance of theatrical effect; it is quiet, seri-



VIEW OF GROUNDS BEFORE CONSTRUCTION



LOOKING TOWARD THE POOL

ous and dignified, carries out consistently the traditions of a great period and above all gives the impression of being comfortable and homelike.

South of the house a ravine cuts through the hillside and in it has been laid out a formal garden which drops by successive terraces toward the lower level, where the width is sufficient to accommodate a generous vegetable garden, also terraced. The ravine affords an exceptional setting for a garden, its detached location permitting of massed planting without interfering with the prevailing sense of openness about the house site.

The garden is approached from the house by a path of stepping stones leading down across the slope of the slightly formalized lawn. A rose garden forms the connection between lawn and garden and from it is obtained a most effective vista. Slightly below this level is a small formal terrace at the edge of which stands a great stone vase which is a dominating feature of the entire garden. From both sides of this terrace successive flights of steps descend by delightfully erratic courses to the long, narrow swimming pool, which is fed by a stream gush-

ing from a grotesque mask set in the retaining wall at its head. Beyond the pool a single, broad flight of steps leads down to a long walk, flanked by rows of low evergreens, extending to a pergola through which the vegetable garden is entered.

Planting on the slopes at both sides gives the garden a sense of seclusion and shows the fascinating possibilities of architectural arrangements enclosed in natural settings. The plan is essentially formal, yet the character of the stonework and the freedom of the planting produce an effect that is delightfully rustic and informal. Flowering trees and shrubs have been used, but merely as an enrichment to existing vegetation.

The entire scheme is comparatively small, never more than fifty feet and for the most part only twenty-five feet in width, but an effect of spaciousness is secured that is out of all proportion to the extent of ground treated. By referring to the small view taken before construction was begun, both the difficulties and the advantages of the site may be in some degree appreciated.

On the upper level beyond the garden is a tennis court so concealed by planting that its presence is scarcely suspected, although it actually extends to the very



A CORNER BY THE POOL



The Architectural Record

March, 1923

View of the Pool

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Olmsted Brothers, Landscape Architects



The Architectural Record

March, 1923

View of the Pool

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Olmsted Brothers, Landscape Architects



The Architectural Record

March, 1923

View of the Garden

RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Olmsted Brothers, Landscape Architects



The Architectural Record

March, 1923

View of the Pool

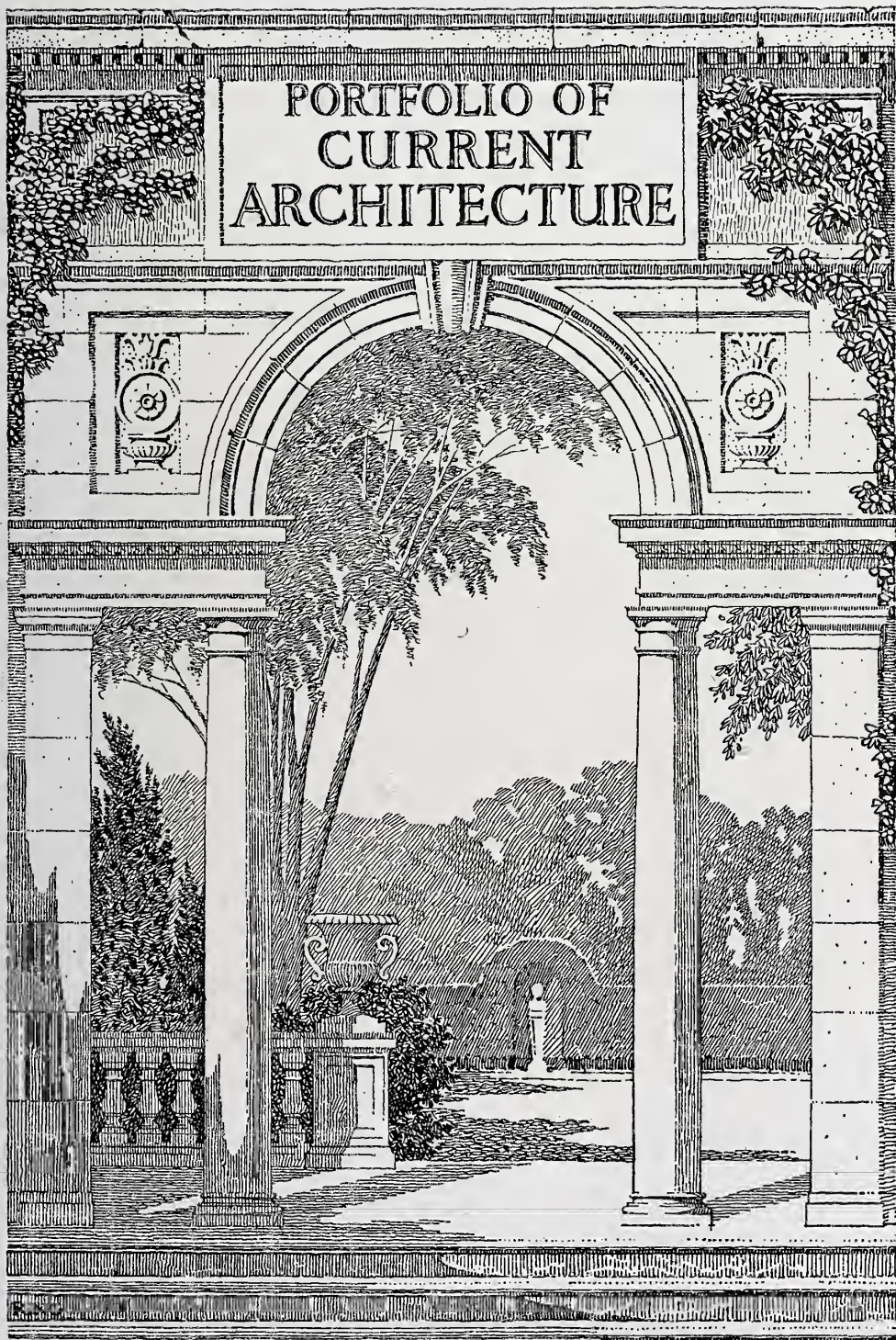
RESIDENCE OF WARREN BICKNELL, ESQ., CLEVELAND, OHIO
Olmsted Brothers, Landscape Architects

verge of the ravine. It is reached by one of a number of tempting paths that lead away mysteriously through the shrubbery.

The treatment of the garden, which is approached by a path of stepping stones, has been conceived in simple terms, with

a view to obtaining large and impressive effects appropriate to the importance of the house and to making the most of the splendid opportunities afforded by the topography of the site at the crown of a commanding ridge.



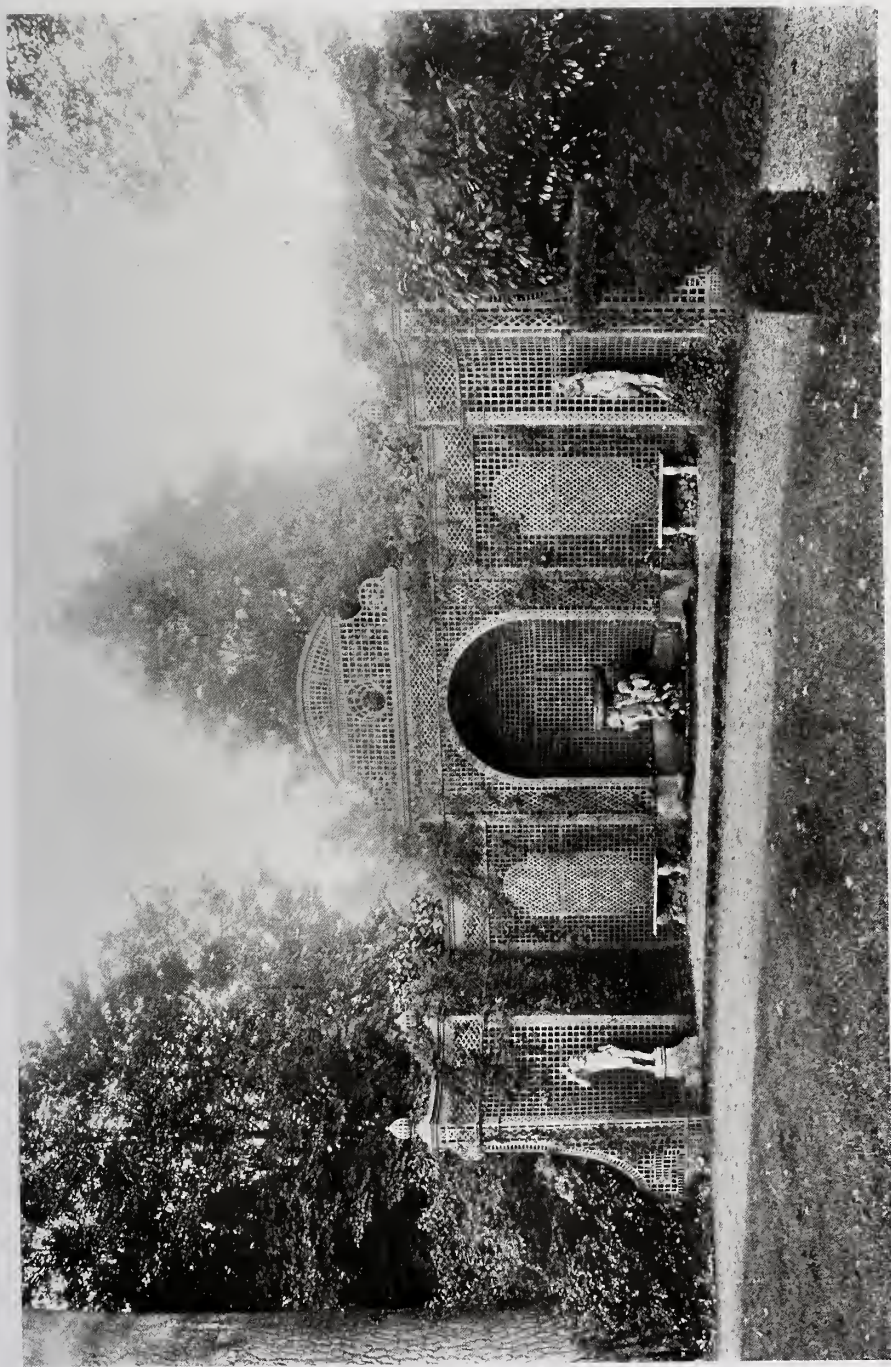




The Architectural Record.

Pavillon de Musique,
VILLA TRIANON, VERSAILLES.
M. du Chêne, Architect.

March, 1923



March, 1923

The Architectural Record.

Garden Treillage,
VILLA TRIANON, VERSAILLES.
Elsie de Wolfe, Designer.



The Architectural Record.

March, 1923

Gate in Garden,

VILLA TRIANON, VERSAILLES.
M. du Chêne, Architect.



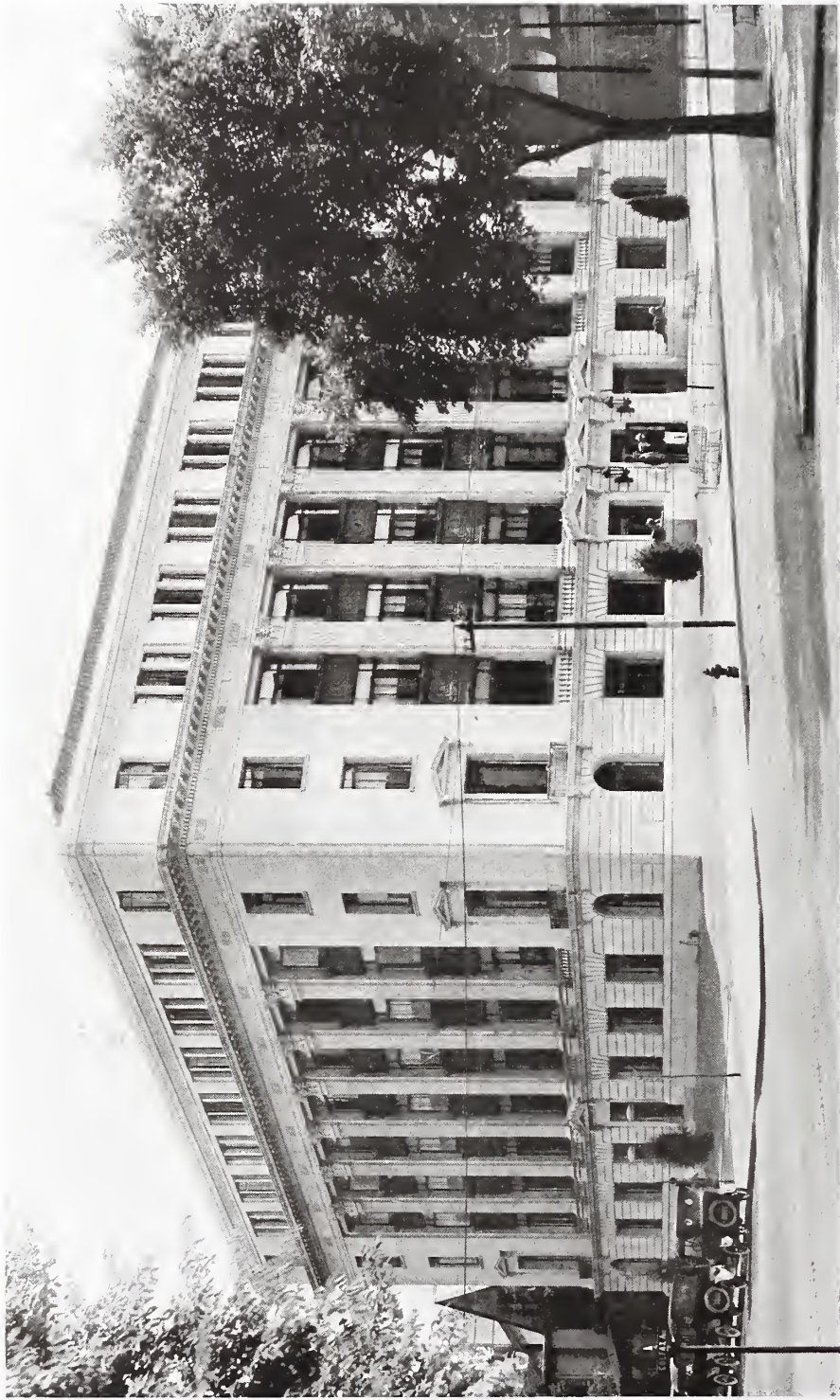
The Architectural Record.

March, 1923

Garden Treillage,

VILLA TRIANON, VERSAILLES.

Elsie de Wolie, Designer.



The Architectural Record.

STATE OFFICE BUILDING, DENVER, COLORADO.
William M. Bowman Company, Architects.

March, 1923



March, 1923

STATE OFFICE BUILDING, DENVER, COLORADO.
William M. Bowman Company, Architects.

The Architectural Record.



The Architectural Record.

RESIDENCE OF WALDRON WILLIAMS, ESQ., RYE, N. Y.
Donn Barber, Architect.

March, 1923



The Architectural Record.

RESIDENCE OF WALDRON WILLIAMS, ESQ., RYE, N. Y.
Donn Barber, Architect.

March, 1923



The Architectural Record.

March, 1923

RESIDENCE OF WALDRON WILLIAMS, ESQ., RYE, N. Y.
Donn Barber, Architect.



The Architectural Record.

CHEESMAN MEMORIAL, DENVER, COLORADO,
Marean and Norton, Architects.

March, 1923



The Architectural Record.

RESIDENCE OF ROBERT F. WELSH, NEW HOPE, PA.
Morgan Colt, Architect.

March, 1923



March, 1923

RESIDENCE OF MRS. G. E. WOOD, NEW HOPE, PA.
Morgan Colt, Architect.

The Architectural Record.



The Architectural Record.

March, 1923

RESIDENCE OF A. H. STRAUS, RICHMOND, VA.
W. Duncan Lee, Architect.



The Architectural Record.

March, 1923

THE NEW FIFTH AVENUE TOWER, NEW YORK.
J. H. Freedlander, Architect.



The Architectural Record.

March, 1923

ST. JOHN'S SETTLEMENT HOUSE, NEW YORK.
De Rose and Cavaliere, Architects.

ARCHITECTURAL SPECIFICATIONS OF A CENTURY AGO



By

SAMUEL LAPHAM, J^r

*Being a copy, with commentary, of the
Documents and Drawings for a Church
on John's Island, S.C., by Robert Mills,
Architect. (1781-1855)*

AMONG the records of the Parish of St. John's Colleton, S. C., there was recently brought to the attention of the writer a small portfolio of drawings and written matter bound together. Through the courtesy of Mr. J. I. Waring, in whose keeping the records are, and of Mr. Albert Simons, the portfolio was examined and proved to contain plans and specifications for a church on John's Island, S. C., by Robert Mills, the architect. These documents were evidently made between 1820 and 1830, when Mills resided in South Carolina. In describing the contents of this portfolio, it would be more explicit to say that it contained drawings, specifications and a report, as in the last part of the document the specification type of writing is abandoned and the tone of the work becomes that of a report to be presented to a committee rather than instructions to a contractor. This belief is strengthened by the fact that the drawings and written matter are sewn in the covers with heavy thread, and their condition is such as to make certain that they were never used on the job.

Of the actual building for the Church of St. John's Colleton, it may be said in passing that all has vanished, save one brick pier, half hid among the creepers.

The writing in this portfolio covers eleven pages, eight and a half by eleven inches in size, and the general appearance is as illustrated. The drawings consist of plan and front elevation on the

central sheet of the portfolio, and then on the following single pages are the side elevation, lateral section and two cross sections. No scale appears on any of the drawings, but checking up by means of the dimensions mentioned in the report proves that they are drawn to the odd scale of one-sixth of an inch equals one foot. All are carefully done in ink and rendered in monotone washes, except on the sectional drawings, where the cross sections of wood and brick are tinted, the former being yellow and the latter red. At the end of the report is the signature, "Robert Mills, Architect," in the same handwriting as that of the body of the manuscript. This signature also occurs, faintly penciled, on the fly leaf, but in this case it is written as "Rob't. Mills, Architect." The plan also has the name formally lettered beneath the title.

This architect, one of whose minor works is herewith printed as a curiosity, seems but little known in the present day, yet he was one of the foremost architects of the early nineteenth century. Few realize that he was the architect of both the Washington Monument and the Bunker Hill Monument, yet they are known to every American; and it would seem that a brief record of his life is at least due him before we reprint and smile over his specifications.

In tabloid form his life runs thus:

1781. Born, Charleston, S. C.
Educated at Charleston
College.



The Architectural Record

March, 1923

Front Elevation and Floor Plan
ST. JOHN'S CHURCH, JOHN'S ISLAND, SOUTH CAROLINA
Robert Mills, Architect

- 1800-1810. In employ of Hoban and Latrobe in Washington, D. C.
- 1810-1812. In practice in Philadelphia.
- 1812-1820. In practice in Baltimore. (Chief work of period: the Baltimore Washington Monument.)
- 1820-1830. In practice in South Carolina, holding the State Office of "State Engineer and Architect." (Numerous buildings throughout country, including the Bunker Hill Monument. To this period also evidently belong the documents under discussion.)
- 1830-1836. In practice in Washington.
- 1836-1851. Architect of Public Buildings. Appointed to this office by President Jackson.
1851. Retired from office and from practice.
1855. Died, Washington, D. C.

The few works named in the above list plus those done while Architect of Public Buildings in Washington, including the Treasury Building (1836), the U. S. Patent Office (1836), the Old Post Office (1839), the Washington Monument (1848), and others, will show by what right he was rated the leading architect of his time. Further and more elaborate facts concerning the man can be found in the Bulletin of the Univ. of South Carolina, No. 77; in an article by Mrs. Austin Gallagher in THE ARCHITECTURAL RECORD, December, 1916, and in an article by Mr. Schuyler in the *American Architect* in 1910.

Returning to the documents on St. John's Church, one cannot but feel that the architects of 1823 had just as hard roads to travel in their professional way as the architects of today have. Cannot the reader see Mills struggling with his building committee or vestry (or whatever body was responsible for the building of the church in those days) as he reads his report to them? Note how he lets them know that he has thought of the health of the congregation by his re-

marks on dampness. When in doubt or met by opposition, note how, like many a modern architect, he overwhelms them with rhetoric. His praise of the dome of the church is a masterpiece in itself. One does not have to imagine the silence of the opposition when he thundered forth, "This is almost necessary where a Dome is, as Congruity is its concomitant." Not even a present-day committee would say anything for a while after that remark. And as to price—which one notes that he waits to discuss until the very end—he is as wary as any twentieth century architect who presents his figures as "an approximate tentative estimate." Mills waits until the end, when the vestry were probably tired and eager to go home and then bases his figures on "enquiries and queries to master workmen," and if his measurements are "not mistaken" the sum he mentions will be sufficient for the building. Whether the church members saw this point, history does not relate. However, on the inside of the cover of the portfolio can be discerned, faintly scribbled in pencil in Mills' writing, the words, "Glory to God in the Highest," with an exultant loop from the end of the last word encircling the whole phrase. Maybe it is Mills' note of what the vestry wished to be put in the blank portion of one of the tablets that flanked the pulpit, as the cross section shows the other portions filled with the Ten Commandments and the Lord's Prayer—but the loop has the flourish of the architect who has successfully passed by the question of estimated cost.

Items of further interest can be found by study of the reprint below. The spelling, capitalization and the figures have been copied carefully, with no changes except for the alteration of the "long s" into the modern "s" wherever it occurs.

The first sheet is a fly leaf, the next is a title page, inscribed in flourishing script lettering with the caption:

Designs for an Episcopal Church to be erected on John's Island near Charleston, S. C., by Robert Mills, Architect. :: ::

And then follows on the third sheet the subject matter as quoted below.

Regulating Bill of Particulars for the Workmen.

Labourer.

Dig out for footing of external walls Eighteen Inches below the surface level and cart away the earth.

Also for interior walls one foot.

Brick layer.

Footing of out Wall Eighteen Inches below the surface level.

Footing of interior walls One Foot below
..... Ditto.....

Bring up all the Foundation Walls Eighteen Inches above the ground level proportion'd in thickness to what is shown in Section. The Bricks laid with good Mortar made of Stone or Shell lime and sharp river sand. All the Bricks used in this building to be sound and well burnt laid in flemish bond, no two Courses to be stretchers.

Carry up Walls externally to imposts of Arches, Fifteen feet, to Top of Cornice Five feet.

Carry up internal walls to Footing of Gallery.

Carry up Columns Sixteen Feet High, Entablature to the Top of Corona 3 Ft. 8 In. springing Arches to support the Brick work above from Column to Column, having first a beam of Oak laid fore and aft, and return'd upon the Walls, properly fast'ned down upon the Columns, not only for strength to prevent the Columns from being overturn'd but in order to form the Architrave of the Entablature.

Carry up Tympanum of Pediment to under-side of Rafters.

Carry up Brickwork over Columns Two feet high from thence spring Arches to meet with the general wall as shown in Section. The external walls to be two Bricks thick. The requisite apertures to be made in carrying up these, Recesses &c. I refer to the plans, Elevation & Section.

The Diameter of Columns Two feet of Doric proportions.

The corner Pilasters carried up without diminishing as do the Columns and other Pilasters.

All the doors and Windows to have Nine Inch arches.

Two projecting courses of Bricks at the feet of all the Arches to form Imposts.

Roughcast the whole of the external walls, Columns, Pilasters &c in the best composition of the kind and mark out the same in a proper and natural manner to imitate Stone.

Carpenter.

Common Joists	10 by 2 In.
Rafters	6 " 3 "
Collar Beams.....	5 " 3 "
Wall Plates.....	7 " 4 "
Lintels	4 in. thick
Ribs of Dome.....	9 by 2 in.
Circular Collar of Ditto.....	4 in. thick
Architrave Beams to Columns.....	10 by 12

All the Timber of good sound Pine.

Frame a Roof with Collar Beams in one

Span, Rafters not more than Sixteen Inches apart, leaving an Aperture for Dome which is to be fram'd of pieces of Inch plank nail'd together in two thicknesses at convenient distances apart, mortise the Ribs into Collar & strengthen them with proper Braces, leave a circular opening in Crown for Sky Light.

Sheet the Roof with $\frac{3}{4}$ -Inch plank, Sheet the Dome also with plank of the same thickness; Lay wall plates all around the building properly scarf'd and lapp'd for the footing of Rafters and flooring Joists, returning them on Cross Walls. The Joists to be caulk'd and notch'd down, not more than Sixteen inches apart, those in Gallery and Staircases put to a breadth to receive the lathing and to have at least Nine Inches bearing on each wall. Lay lintels over all the required apertures of Doors, Windows on proper Topsils. Prepare for Bricklayer all the Centers for Arches. Lay Architrave Beams over external Columns and return them on the Walls.

Frame with common Inch plank a Cove, springing from the Imposts of the Circular Windows, meeting and nailed to the Rafters.

Slater.

Slate the Roof with the best blue Slate.

Copper Smith.

Copper the Dome, Neck, Steps and Pedestal of Dome with the best Sheet Copper, each Sheet properly lapping each other and nail'd with Copper nails.

Joiner.

Lay the floors of Pews and Platform of Pulpit with $1\frac{1}{4}$ Inch plank, clear of Sap or Shakes, straight Joint, groov'd and tongued, the boards of the latter not wider than Six Inches and secret nail'd.

Lay the floor of the Gallery with $1\frac{1}{4}$ Inch plank clear of Sap or Shakes straight Joint, groov'd and tongued.

Wainscoting to Pews to be Inch thick, rais'd pannels one side, flush and beaded the other. Stiles stuck with a quarter round. Torus moulding capping to all the Pews, plain seating with front Edges rounded off and Ogee Supports. Box'd Sash frames to all the lower Windows, with bead. Parting pieces. Oak sunk Sills, and $1\frac{1}{2}$ Inch Ovolo Sashes hung with Cast Iron Weights. The Top circular Sashes to be hung on Pivots, solid frames; All the Door Frames to be Four Inch by Five Inch with proper Rabbits for reception of doors. The great door to be 2 Inches thick, the inferior doors $1\frac{3}{4}$ Inches thick, Rais'd Panels one side, flat the other. Stiles stuck with a quarter round. Run up a common winding staircase upon a circular base, $1\frac{1}{2}$ Inch Oak Steps, $1\frac{1}{4}$ Inch risers, with a center Newel. Run a Balustrade of square Balusters round the Platform of Pulpit and Gallery, butting the latter against an Inch Plank, thickness'd and smooth'd both sides; Hand Rails work'd.

Plasterer.

Lath and plaster the whole of the requisite

Regulating Bill of Particulars for the Workmen.

Saviour.

(Dig out for footing of external walls Eighteen Inches below the surface level, and cart away the Earth;
the for interior walls one foot.

Brick Layer.

Footing of out Wall Eighteen Inches below the surface level.
Footing of interior walls One Foot below. Ditto.
Bring up all the Foundation Walls Eighteen Inches above the ground level proportion'd in thickness to what is shown in section. The Bricks laid with good Mortar made of Stone or Shell lime, and sharp river sand, All the Bricks used in this building to be sound and well burnt laid in Flemish bond, no two Courses to be stretchers.

Carry up Walls externally to impost of Arches, Fifteen feet to Top of Cornices five feet.

Carry up internal walls to Footing of Gallery.

Carry up Columns sixteen feet high entablature to the top of Corona & supporting Arches to support the brick work above from

Walls, Cielings, Recesses &c in three Coats, the same to be laid smooth and even, properly whitened.

Stucco Plasterer.

Run single Architraves round all the Arches, over Windows, Doors & Niches, finishing them at the Imposts, which in the side arches are to form Cornices or Cappings to Consoles on Trusses. Cast Ionic trusses for all the side arches and fix up the same in their proper places under Imposts.

The Columns under Gallery to be of the Ionic Order with their congruent Entablature, Cornice to have modillions instead of dentils. Run an astragal, cut into beads at the foot of the dome, also at bottom of the skylight. Run a plain Cornice round the top of the walls in Vestibule and place an oval ornament with a pateria in the center of the ceiling.

Glazier & Painter.

Glaze all the Windows with good clear white Glass, well bedded in putty and back puttied.

Give the Glass and sash Frames three coats of white Lead.

Paver.

The floor of the Vestibule and staircases together with Porticoes to be levell'd with clay, well ramm'd, laid with the best 9 Inch pan Tiles diamond form and bedded in sand, falling 6 Inches below the floor of Pews.

Stone Cutter.

Prepare and set all the Sells to the Windows, Bases to the Columns and Steps to Porticos, of the best free Stone of Virginia or New York, free from Shakes or Stains, particularly for the Sells of the Windows and bases of Columns.

As the preceeding Observations shew, I have proposed to have the whole of the external walls and Porticos rough cast. This not only has the handsomest effect for a building of the kind, but is attended with an advantage that ought to be particularly attended to, in the situation in which it is contemplated to be placed; This advantage lies in the Walls to prevent the penetration of that dampness which proves not only injurious to the plastering within but prejudicial to the health of humanity. Still more to obviate this Inconvenience, I would propose after a twelve months Plastering to saturate the Plastering with Linseed Oil and then give it one or two Coats of Paint. Owing to a peculiar Quality attached to Bricks made in and about Charleston it would be prudent to let the Walls remain about a Year before they are rough cast.

In my Estimate I calculate upon having the Columns of Brick, except the Abacus and Fillet;

The Entablature will be of Brick also with its mutules, except the four corners which owing to the great projection of the Order will be necessary to have of Stone; The Brickmaker must be notified of this, that he may form the requisite moulds. The Door and Window Sells are to be of Stone. The Steps of the Portico as they are inserted between the Zocles of Columns, I would have of New York Stone, which are to be found work'd up into Slabs, having Brick risers. The paving of Portico of the same kind of Stone, or scots grey Stone in Squares. The floors of Iles & Vestibule to be laid with black marble Squares; those of the staircase and other circular Rooms either of Boards or the same sort of Stone as that under Portico—I have elevated a small dome on the Roof both for the distinguishing of the building and for Beauty both externally and internally. I have proposed a Skylight from this dome, this is almost absolutely necessary where a Dome is, as Congruity is its concomitant.

This will be coppered externally, Internally I have design'd it to be ornamented with Stucco pannel work, as also the Cove under it which extends from End to End of the Church, this however will be an extra Expense if it should be adopted. What Stucco Work is introduced will be found mentioned in the Bill of Particulars under the head "Stucco Plasterer." The Gallery in this Church is purpos'd entirely for Servants, it is small and lying over the Vestibule. A front finish of it is shewn Page. . . . The Extent of this Edifice is 42 feet exclusive of Porticos, the width $26\frac{1}{2}$ ft. Twenty Pews are obtain'd in this Plan and except Two, are not less than 9 Feet by 3- The Ile between is 5 feet wide, at the east Extremity the Pulpit is placed in a Niche for the Purpose. The Commandments &c are placed on each Side See Page. . . .

The Drawings are so explicit that I conceive further description unnecessary.

Ere I began my Estimate for this Building I made Enquiries and proposed Queries to the different Master Workmen relative to the Prices such and such work could be executed at, and having been satisfied in these particulars attach'd them to the Quantity of Work I found by measurement &c in the church; The Amount of the aggregate of the whole I found not to exceed Dollars 6400 to which if you add 25 Per Cent for Risk in Carriage, Time expended &c. brings up the Sum of Dollars 8000: This if I am not mistaken in any measurements will suffice to finish the said Church in the manner mentioned in the aforesaid Bill of Particulars.

(Signed) Robert Mills Architect.

Numero 93, Rue Royale, Versailles

by

Harold Donaldson Eberlein
and Leigh Hill French, Jr

THE HOUSE AT NUMBER 93, Rue Royale, in Versailles, is one of those perfect specimens of a type that one is rarely fortunate enough to meet with. It is so perfect in every particular, both inside and out, that its existence seems well-nigh incredible. There are no irrelevancies to mar the completeness, no incongruities to spoil the ensemble, no deficiencies to leave room for any additional desiderata.

The existence of this bit of perfection in type may be thus explained. The house itself was there, an unspoiled survival from the Directoire period. It came into the possession of a distinguished *antiquaire* of Paris who keenly appreciated its inherent qualities and has made it as his home, sparing no pains to have even the least external feature and the smallest item of interior appointment scrupulously correct according to the standards of the period. In creating any composition of such archaeological exactitude there is always present the danger that the result will prove utterly cold and lifeless, a mere mummified expression of a past vitality. In this case, fortunately, the owner and occupant has not only taken the dry bones and impeccably restored a former architectural and decorative type to the last scintilla of correctness, but he has made his work, so to speak, a living organism. That is one reason why it is reproduced here, for the Directoire mode is commanding more and more attention and any material that may contribute a clearer understanding of its niceties is of present value. The other special reason for presenting it is its suggestive quality in the treatment of a small property—the entire width of the premises is only thirty-eight feet.

The house is of stucco painted a clean,

cool grey and the woodwork is white. The little entrance courtyard is graveled, and adorned with borders of geraniums. Back of the house is a long garden with graveled paths leading to a little tea-house or breakfast pavilion at the angle of the rear wall, beyond which are the stable, rabbitry, poultry yard and vegetable garden. The sheet iron hood over the garden door is merrily painted with red, white and blue stripes.

The character of the interior decoration and furnishing is made sufficiently plain by the illustrations, but a few color notes will prove illuminating and helpful to a thorough understanding of the ensemble. In the hall the walls are painted light grey, while the door and window frames and the trim surrounding the niches are marbled white and grey. The base is marbled black and yellow and the floor consists of black and white marble chequers, the quarries being eight and a half inches square. In the passage between the drawing-room and the dining-room the walls are wholly marbled—a dark grey dado, light grey upper walls and black border bands. In the drawing-room the woodwork is pale green picked out with rose lines; the cornice is also pale green picked out with rose lines; the ceiling is white; the plain wall-paper is a greyish buff and the patterned paper border running beneath the cornice, above the baseboard, and down the angles of the walls is dark brown. The woodwork in the dining-room is cream color picked out with light green lines and the cornice is painted in the same manner; the dado is painted the same color as the woodwork and the light green lines are repeated in the chair rail; the base is marbled deep red and white; the plain wall-paper is light sea

green, and the patterned paper border beneath cornice, above chair rail, and carried down the angles of the walls, is in deep red and gold. The library walls are covered with plain chrome yellow paper, the narrow patterned paper border beneath the cornice and carried down the angles of the walls being deep purple and deep green; the ceiling is white; cornice, woodwork and baseboard are grey, picked

out with white lines. Although the description may sound somewhat startling, the effect is not at all garish but extremely subtle in its combination and balance.

The poise and dignity of this small establishment, with its thirty-eight foot frontage, command attention and deserve close study for the lesson conveyed of doing much with a very small space.



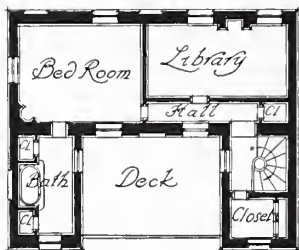
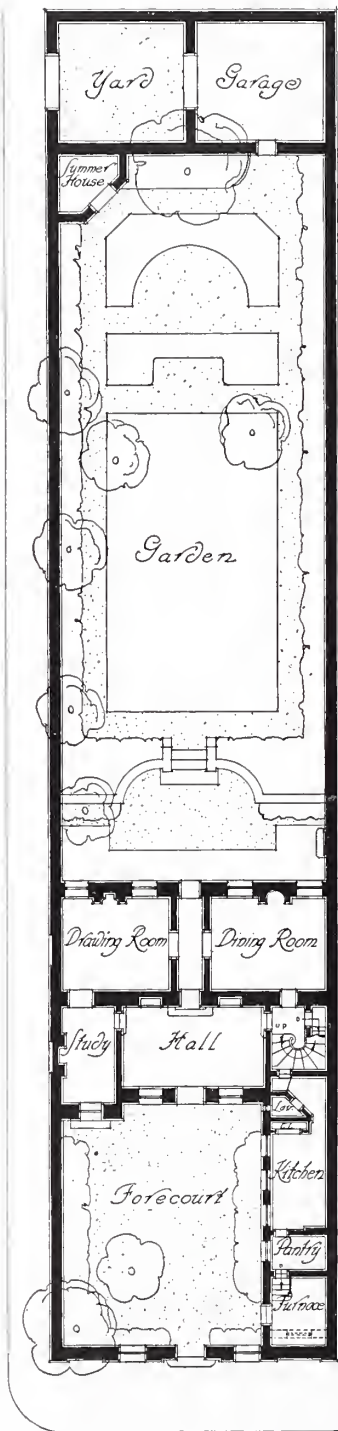
Gate and Forecourt
NO. 53 RUE ROYALE, VERSAILLES



The Architectural Record

General View
NO. 93 RUE ROYALE, VERSAILLES

March, 1923



*Plan of
First Floor*

*93
Rue Royale
Versailles*

~ scale ~
10 0 10 20 30



The Architectural Record

Garden Front
NO. 93 RUE ROYALE, VERSAILLES

March, 1923



The Architectural Record.

March, 1923

Gate Detail

NO. 93 RUE ROYALE, VERSAILLES

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March, 1923

Detail of West Front

NO. 93 RUE ROYALE, VERSAILLES



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Entrance Hall
NO. 93 RUE ROYALE, VERSAILLES



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House Door
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Drawing Room

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Drawing Room Doorway

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Dining Room

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March, 1923

South Wall of Dining Room

NO. 93 RUE ROYALE, VERSAILLES

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West Wall of Dining Room
NO. 93 RUE ROYALE, VERSAILLES



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West Wall of Dining Room

NO. 93 RUE ROYALE, VERSAILLES



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Library

NO. 93 RUE ROYALE, VERSAILLES

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Bedroom

NO. 93 RUE ROYALE, VERSAILLES

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The Architectural Record

Wall Fountain

NO. 93 RUE ROYALE, VERSAILLES



Tea House in Garden

March, 1923



The Architectural Record

Garden Door



Detail of Garden Front

NO. 93 RUE ROYALE, VERSAILLES

March, 1923



West Front



The Architectural Record

House Door and Kitchen Wing
NO. 93 RUE ROYALE, VERSAILLES

March, 1923



The Architectural Record

March, 1923

Garden

NO. 93 RUE ROYALE, VERSAILLES

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The VIENNESE METHOD *for* ARTISTIC DISPLAY

NEW YORK GALLERIES *of the* WIENER-WERKSTÄTTE
OF AMERICA

By Leon V. Solon

When walking down Fifth Avenue recently I happened to remark a life-size gilt figure in a second floor window which had all the appearances of a remarkable work of art in the archaic manner. This, combined with the title of the concern housed therein, which was in a language rarely seen in public places of recent years, excited sufficient curiosity to make inspection an urgent matter. A visit made next day proved so interesting that it has been repeated several times, each time with stimulated interest and with a clearer enlightenment upon certain decorative convictions that are rapidly gaining converts here.

It proved to be the exhibition galleries of a group of Austrian artists and craftsmen. The work exhibited is of that variety which was formerly described as "Art Nouveau," a designation used here for information, not condemnation. All the exhibits are of artistic value, and are extremely interesting from the point of view of design, technique, and treatment of material for its decorative capacity.

It was very instructive to find that a style which has been relegated to the discard in favor of historic influence anticipates in certain forms of expression a new decorative feeling in architectural treatment. As a matter of fact, its relation to our architecture was not distinguishable a decade ago for the reason that architectural feeling in this country at that period had not evinced those tendencies which make the connection now visible. In addition, this form of decoration long ago reached an impasse, and produced tedium owing to the frequent repetition of the same note by inferior exponents or feeble imitators. The

movement now begins to assume a new significance in an architectural sense; it is a sharp breaking away in interior ornamentation from the rigid control of conventional architectural treatment inherited from the sixteenth century. We are made to feel that a new order of values has been inaugurated in interior decoration; and though many will not agree with the manner in which treatment is developed, the educational value of the effort and the independence of thought remain for deduction and instruction.

Where the architect is confronted with the problem of creating a setting for displaying objects of manufacture, the treatment of this interior is full of suggestion as to the mental attitude that he might adopt. The mental processes which are apparent there seem to have succeeded each other in the order of their relation to the ultimate objective—the enhancement of the objects displayed. They appear to have followed in this sequence:

1. The relation of general effect to display requirements.
2. The contrivance of detail and color masses to the main idea of display.
3. Architecture to figure merely as a minor accessory to decoration.

The specific problem was to make a homogeneous effect with a heterogeneous assortment of objects extremely varied in material, quality of effect, and artistic interest. These included painting, sculpture, furniture, faïence, glass, lace, jewelry, textiles, etc. The interest of the visitor had to be focussed on each object regardless of an actively competing interest in its near neighbors. General scenic value can easily be obtained at the



The Architectural Record

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Decorations for a sitting-room. Faience panels in window decoration.

THE WIENER-WERKSTAETTE OF AMERICA, NEW YORK



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Interest focussed upon the exhibition cases by the treatment of walls and ceiling.

THE WIENER-WERKSTAETTE OF AMERICA, NEW YORK



The Architectural Record

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The entrance rotunda.

THE WIENER-WERKSTAETTE OF AMERICA, NEW YORK



White lace displayed in a black room.
THE WIENER-WERKSTAETTE OF AMERICA, NEW YORK

expense of its component items, but to combine that interest with a well preserved individual interest in each exhibit is no small achievement. It is brought about with skill and success in this gallery.

Regulation features, such as cap and base, are not used; in fact, moldings are a negligible factor, serving merely as frames to spaces or as boundaries to colors or patterns. An interesting feature is developed in the treatment of angles; a "bead and reel," carved in the round, makes contact with projecting angles with excellent effect. The niches in the window recess are contrived in an unusual fashion, so that no sharp shadow disturbs the background of the objects they contain. The semi-circular section of the surfaces separating the niches impart a sense of structural strength to the wall by the suggestion of imbedded columns.

Forcible contrasts are skillfully manipulated to enhance the delicacy of the exhibits by a quality of effect which is the

reverse of that usually developed under parallel circumstances; black is the prevailing tone used, either in solid masses or relieved with repeating sprigs at comparatively rare intervals. In the gallery to the right of the rotunda an excellent method is devised with the purpose of concentrating interest upon the recessed spaces in the walls, which are filled with very varied and small exhibits; bands of black decoration start over each recess, traveling across the ceiling to the opposite recess. Interest is focussed by this means in the same manner that sight is caused to travel instinctively to a lighted window in a dark façade. The display and decorative value of this is considerable.

The little rotunda which faces one on entering is charming, creating an atmosphere that is most fitting to the exhibits. Each display space is separated by a small semi-circular recess, in front of which a curiously designed shaft supports a piece of sculpture or decorative art; it is a rational way of spacing the panel pictures and of separating interests that

compete. Each room is a distinct study in effective display, wherein the objects shown are the first concern of the decorator. A very interesting point of view presents itself in analyzing the principle of these treatments, which may be worthy of consideration. In exterior architecture, color effect is directly related to architectural conditions and subordinated to them. In this scheme we find this method reversed, and all suggestion of architectural construction practically eliminated or entirely subordinated to color or decoration. This is a very

novel angle of thought, as the architect today leaves certain features, such as cornices, base, trim to openings, and the like, which are fixed points to which the decorator must conform. Should decoration be restricted to such a degree in every case? Or should the decorator fix the boundaries of decorative spaces, using only such architectural features, if any, as are needed to accentuate his decorative spacing? This exhibition of the Wiener-Werkstaette of America stimulates many thoughts of such character.



A novel treatment for niches. The figure is gilt terra-cotta, life-size.

THE WIENER-WERKSTAETTE OF AMERICA, NEW YORK

ARCHITECTURAL POLYCHROMY

By

C. HOWARD WALKER

An address delivered at a joint meeting of the Illinois Chapter of the American Institute of Architects, the Illinois Society of Architects and the Chicago Architectural Club, October 11, 1922, on the occasion of the opening of an exhibition of tiles and tilework, by The Associated Tile Manufacturers.

There are definite objections to the use of many colors upon the exterior of buildings for several reasons.

A building is an entity, a complete and adequate organism, and its expression should be one of unity. Factors which would tend to minimize this expression by introducing a confusion of statements are inadvisable.

Such confusion would occur from the introduction of colors, unless there were a marked domination of one color. Therefore a general tone and a dominant color serve best to give harmony to the general effect. The introduction of polychromy should be minor and accessory and devoted to intimate details which should accent but not disturb the general effect.

There were at first but two reasons for the use of color. Men had little or no intention to beautify objects by its use. It was protective, as with birds and insects, merging into the background and inconspicuous, or it was later a picture book, a record of events, simply representative, with an attempt at natural coloration. As it was to be read as a record, it was in zones read from left to right upon the walls and upon the columns in Egypt, and led eventually to the hieroglyph, the alphabet and finally to written language, by which time the superposed zones, having lost their purpose, had disappeared. In all respects the forms and their color were literal and representative, as far as was possible without a knowledge of either light and shade, shadow and perspective. The colors were of local coloration, even and

flat. The ceilings of the Egyptian temple are the deep blue of the heavens, studded with stars. The plants of the river, the lotus and papyrus, and the palm appear in the flutes of the columns and in the bud and bell capitals, because these columns were first made of the reeds, and the record is painted in their natural colors upon the stucco-covered stone. The colors are intense, partly because they are oxides of copper, burnt earths and cinnabar, and also because shadows are deep and dense and the detail would have been lost had it not been in intense color, which clarified it and gleamed from the shadows.

Around the columns and upon the pylons the figures, which are colored the brown of the bronzed actual figures which they represent, record the occupations of the Egyptians, the ceremonies of the temple and the wars of the king and his armies going out to the far-flung boundaries of the realm. They are the great picture books of the time.

All Egypt was a picture book and each moulding was decorated with symbols which told a story. A background had been provided upon which the record gleamed, a page upon which was displayed definitely each object and symbol, and no background could be better for this purpose than one that was white. Therefore the Egyptian covered his brownstone temples of the south and the limestone mastabas of the north with the Egyptian white earth, the stucco, and created a tradition which was followed by the Greeks.

The mouldings were painted with repeated symbols. To Osiris all the plant forms coming from the earth, that mysterious realm of the dead and of the God; were dedicated and appeared upon his temples.

Polychromy therefore either literally or symbolically told the story of the land upon a white background, which became almost a necessity, for it was always related to religious buildings and expressive of the highest ideals of the people, and the tradition was maintained and extended to Phoenicia and to Crete, where it met the work of Mesopotamia and was carried to Greece.

The most beautiful buildings were white and their colors were purer and clearer and perceptible at a greater distance than were other combinations of color. The clarity was very marked, but the pigments were permanent only in lands where rain was rare.

Herodotus and Theodoros both give accounts of the glazes of Central Asia. Even in their time it was considered probable that the knowledge of these glazes had come from further east, and it was generally assumed that they were from China.

In any event it was necessary to protect the sunburned brick of which the terraces and buildings of Babylon and Nineveh were carefully laid, for with the occasional great rains and the inundations they were washed into masses of clay.

Xenophon in his march of the 10,000 camped upon the site of Nineveh without knowing it, and the Romans had a military camp extending within its walls and were ignorant of its existence, though much has been discovered by modern excavation. Therefore all Mesopotamia began to protect its mud brick by glazes of many colors.

The towers known as Ziggurats, upon which were elevated the sacrificial altars, were built terrace upon terrace, each of the symbolic color of one of the planets, white, blue, yellow, green and black. These zones of color so resemble the stratifications of the Grand Canyon that its mountains have been named after the temples of Mesopotamia and of India.

The bricks were thin, so that they were readily burned throughout and were large, often two feet square, and were protected by colored glazes.

In the ancient world the painter was considered inferior to the sculptor. He was in fact an artisan and remained with some few exceptions in that position well into medieval times. There are accounts of mural paintings at Delphi and elsewhere in Greece which were the work of great painters, but usually the painter's work was confined to coloring masterpieces of sculpture or of architecture. Even as late as the fourteenth century in Spain there were different grades of workmen—the assemblers, who made the design and superintended the work; the sculptors or carvers, and, then, the painters of the flesh, faces and hands and feet; the painters of the robes and the gilders, who put on the gold patterns—each an artisan doing his part. The sculptor, upon the other hand, was always considered a skillful artist, and the arts of sculpture—the productions having the third dimension—were early developed to a high degree. Because the sculptor was pre-eminently the artist of the time he constantly did the drawing. In Mesopotamian work, in Egypt, upon the Greek vases, the work of the man who puts on the color follows that of the man who has drawn with an incised line. This is characteristic of the work.

Skill in line drawing was considered a high art. There was no affection for the so-called lost line and the results are a lesson to those who appreciate a beautiful line confining the color within it which was laid in by the painter. This decision of line and clear definition of areas of color are to be found in the work of the Building Material Exhibit. It is the occasion for the little raised dikes to be found in the tiles to hold and retain glazes, which when fired upon plain surfaces would run into each other. All Mohammedan work shows extreme care in regard to the isolation of colored glazes, for if glazes fused together the work was considered ill done. The same care occurs in the Assyrian tile and in the Greek vases, and in the one great

exception, the famous archers frieze in the Louvre, of which there is a colored copy in the Metropolitan Museum in New York, and which is in bas-relief and therefore has no raised dikes, and in which consequently the colors have fused; at a distance of fifty feet the forms begin to disappear and the effect is confused and ineffective.

Color was confined in definite areas, each defined by an incised line drawn by a master draughtsman. There was consequently clarity of statement and carrying power, which are essential in the use of polychromy.

There is evidence of the same intention in the stained glass of the thirteenth century. The stained glass masters knew well, as did the mosaic makers of the sixth century, that each area of color must be defined at its perimeter. Colors of similar tones could not be placed immediately adjacent to each other without a white or black line separating them, preferably a white line to prevent confusion.

But to return to the pigments. If exposed they were injured by the effects of weather. The earlier pigments were powdered and were mixed with a medium of some kind of glutinous substance, white of egg, fish glue or gum. At times the gum was put on first and the color laid upon it. This was the case with the applications of gold leaf. There is an interesting book by Laurie upon "The Pigments of the Ancients." When metal was applied and at other times when it was desired that the gum should not dry too quickly, honey was mixed with it. The background, until the buildings were built of white marble, was of white stucco.

Porous stone, limestone, sandstone and brick were all covered with stucco, upon which in contrast the pigments were fresh, clear and beautiful. The early painting was of dark-toned figures upon light ground, as in the Etruscan vases and the later Greek *Iekythae*. Flesh colors were of dull maroon, hair and beards purple black, women were colored a warm pinkish tone. In the sixth century before Christ the sculpture was of

marble and light figures upon dark ground appeared, and the tendency to consider white as the noble color increased as time went on.

But the color of the cities was probably not entirely white, as that was confined to the temples and the important buildings. Apart from glazes there was another coating put upon walls which would protect them from the weather, i. e., asphaltum or bitumen. In the Old Testament, King James translation, it is stated that the Tower of Babel was built up and put together with slime, and there have been sermons by well intentioned but poorly informed divines drawing a lesson from the imbecility of the Babylonians who built with slime; but the French Testament in its translation says the tower was put together with asphaltum, an excellent material to be found throughout Central Asia. Asphaltum or bitumen was very generally used as a protective paint. Its gamut of color was from that of the crude product, purple, black and brown to the amber of the refined material. The mummy cases took the color of the medium. An ancient city had the gamut of color of the bitumen and was probably purple and brown at the water's edge and above golden amber culminating in the white temples of the Acropolis, gleaming in color and gold. It is possible that the tradition of golden color of the Italian masters came down from Egypt to Greece and to Byzantium and was brought to Italy by the Greek priests, who taught in Florence and worked by the side of Fra Angelico, using the golden color of the amber bitumen.

A method more resistant to weather than that of painting with the gum medium was early adopted, and was known as encaustic painting, in which hot wax was either used as a medium or applied to the face of the color, usually the former, and while the color was hot it was pressed down to create a hard resistant surface. The color was thus made permanent and was as fresh as if glazed. That which is so well preserved upon the walls of Pompeii is of this character.

The early Greeks were not far removed from barbarians and before the archaic civilization they probably painted their wooden temples in as many colors as the Alaskan Indians paint their totem poles, and even after the wooden temples in the eighth and seventh centuries before Christ began to be translated into stone the traditional coloring was probably retained, as the Etruscan Temple of Jupiter Capitolinus in Rome was retained until the time of Germanicus, but that is no reason for assuming that the temples of the Greeks in the great period of the fifth century should have been as crudely colored as they are shown to be in Hittorff's restorations, which have been considered authoritative. There is one man who has shown an appreciation and a knowledge of the polychromy of the Greeks; he is Mr. Leon V. Solon.

Without doubt remains of color indicate that the ends of the triglyphs were blue, and that there was red on the edge of the epistyle in some cases, but that these in the resultant badly proportioned areas were anything more than backgrounds for gold patterns, there is ground for considerable doubt. It seems reasonable to argue from analogy rather than from some evidences of color which have defied the action of time.

The Greeks in the eighth century before Christ used color crudely and lavishly; with the advent of the Ionians the finer art of Asia Minor began to influence that of the Greeks, and by the time of Pisistratus it had become refined, as all the minor arts testify. The figures of the maidens in the Acropolis museum have delicate decorations, the Greek vases are exquisitely drawn and there is no indication of undetailed masses of color. In the classics there is constant reference to the lavish use of gold. The palaces of Ulysses and of Antinous are mentioned in the *Odyssey* as gleaming with gold, and there are but few works of antiquity in which gold as a decoration is not mentioned. It was the common metal of the time, silver being rare. Monies were of silver. It is known that in Mesopotamia and in Asia Minor gold

ornament occurred constantly. Bronze was overlaid with it, as in the rosettes of the mausoleum of Agamemnon. Gold masks covered the faces of the dead. The Athene Parthenos of Phidias was of ivory and gold, and his chryselephantine Zeus at Olympia had a base of ebony and ivory and gold encrusted with precious stones.

The helmets and strings to the sandals of the knights in the Panathenaic Frieze were of gold. It was everywhere present, yet Hittorff's accepted restorations comparatively ignore it. Is it reasonable to assume, when the treatment of the objects which retain their color is so subtle, that the polychromy of the temples alone should have remained barbaric and crude?

The west pediment of the Parthenon represents the contest of Athene and Poseidon for the soil of Athens. The centre of the pediment between the two gods is void. Poseidon has the trident, but the olive of Athene is absent and yet it is the great symbol of her triumph. Could it have been painted in gold as the central motive of the pediment? Is it reasonable to conclude that only occasional unrelated spots of gold were upon the Parthenon? Pausanias states that the Pentelic marble of the Parthenon offended Greek taste from its excessive whiteness, and it was "rubbed with saffron and milk," the latter turning it to an ivory tint and the particles of saffron sparkling like gold.

Could the Greeks, who were so subtle in their taste in this respect, have left crude undetailed squares of blue upon the triglyphs? In various accounts of the precinct of the temples upon the Acropolis of Athens the writers mention the constant recurrence of the olive and the laurel, yet but few examples exist. Is it too imaginative an idea to consider the blue of the triglyphs as a background for designs in gold or laurel and olive in the channels? The Greeks accented the outside edges of their mouldings by incised lines and the edges of the articulated parts of their structure by lines of dark color. Might not the color which Hittorff spreads over surfaces have been

merely what remains of these colored lines?

There is no reason to assume that because the Greek was barbaric in his taste in the eighth century he was the same in the fifth. He undoubtedly appreciated the superb quality of gold, of a surface which reflected light with splendor, which had warmth, not the cold glitter of the more precious metal, silver, and which harmonized with all colors. Gradually polychromy upon the exterior of buildings became less, but gold remained, and the Ionic and Corinthian orders were of white and gold. The use of colored marbles instead of perishable pigments appealed to the Romans and painted polychromy was relegated to interiors.

The house, which in ancient times had been deemed unimportant, even ephemeral, became more permanent and its rooms were decorated in color. The remains of Pompeii show the plans of Roman houses and the systems of color decoration upon their walls. As light came only through the centre of the ceiling, the ceiling itself and the upper portion of the wall, i. e., the frieze, received only light reflected from the floor and therefore left white or light, with delicate dark designs upon it. The bottom of the wall, to a height of three or more feet was a dark, at times a black zone, as a protective color against injury by portable objects, and as a contrasting background for marble and bronze furniture. The large expanse of the middle wall, between the base zone and frieze, was of middle tone and clear color, divided vertically into panels by delicate lines of pilasters or border patterns and in the centres of the principal panels little figures or pictures were painted. If the occupant moved he cut out the figure, put a rectangular frame about it and inserted it in the panels of his new residence, thus inventing the first framed picture. The painting was encaustic, with wax as a medium, upon stucco. The colors were pure and clear and of high intensities.

The eccentric conceptions upon some of the walls of Pompeii did not occur in the finer rooms of the palaces of the Emperors, such as the house of Livia on the

Palatine. The polychromy of the Romans was obtained in their monumental buildings by colored marbles, and by colored glass in the pierced stone grills of the window openings in the baths, which shone like jewels. Then there came a new art from the East—the mosaics of Byzantium, with gold, and blue and sea green grounds. There had long been mosaics of colored pebbles such as those of the temple floor at Assos, and of the marble tesserae of Roman buildings, but they had been comparatively devoid of color and had not ascended upon the walls. The wall mosaics, at first the mere salvage of precious broken Persian tiles, were found capable of covering curved surfaces, vaults and domes, which tiles were not, and the mosaics were put together of small pieces of the most beautifully colored fragments of stone and of glass which otherwise would have served no purpose.

The tradition of blue and green and of lavish use of gold in the East is carried on by the mosaics. From what could this tradition have come in the sixth century A. D. if not from the buildings of Asia Minor and of the Greek colonies, which had blazed in gold? The clarity and definition of shapes and designs were maintained in the mosaics by black or white outlines, a definition which was retained in stained glass later.

When Leo the Isaurian in the eighth century condemned to destruction all effigies, the Greek artists fled to Italy, taking their arts with them, and where mosaics could not be obtained, walls and columns and arches were painted in the Romanesque times with imitations of its patterns, and polychromy spread over Europe upon both the exteriors and interiors of buildings.

In medieval times there was a riot of color only tempered by the dim light of the interiors of the buildings and the dark stones of the uncarved surfaces of the outside walls. Everything was painted, statues, carved mouldings, ornament and architectural forms.

The tendency of medieval and Gothic detail was towards naturalism and colors had the local color of the objects carved,

often therefore adjacent colors had similar tones, which were separated from each other by gold in lines or in patterns, and by white. Clarity of effect, always essential, was thus obtained.

It was at this time that colored terracotta was adopted in Italy as much more permanent and more brilliant than pigment, and it has been used with admirable effect ever since. In this the common-sense tradition of separating similar tones of color from each other by white or light tone still occurred. Sharp contrasts of tone gave definition of delicate detail which otherwise would have been lost. There are some excellent examples in the exhibits here of the value of black contrasts with white tile and terracotta.

Coincident with the naturalistic work in Europe, is the geometric work of the Mahomedans which makes its appearance in the eighth century A. D. The tenets of the religion very strongly prohibited naturalistic representation as being impious and as competing with the creations of Allah. The penalty for violation of this law was very severe. As a result, all efforts in design were compelled to resort to geometric patterns, and to this fact we owe the largest quantity of patterns in existence. At the time when our ancestors were but little removed from barbarians the Mahomedans in Central Asia, in Cairo and on the southern shores of the Mediterranean were the most cultivated people of their time, establishing schools and hospitals, and providing Europe with physicians. They were expert geometers, and the ingenuity and intricacy of their designs is unequalled. Faience and glazed tiles they had derived directly from Persia, and mosaics from Damascus. The gamut of their color combinations was direct and simple, but the effects were subtle and delicate. They covered surfaces with small patterns which were colored elaborately, as were their textiles. These patterns were modeled in planes, each slightly in advance of that behind it, the pattern of the highest plane being of the largest and most open design, through the interstices of which the design of the next lower plane appeared.

If there were a third plane, its design, which was necessarily the smallest in scale, showed between the interstices of the pattern of the second plane.

There were seldom more than three planes of ornament, each of which was at least one-half an inch in advance of that behind it. The final background was a dark color, the highest plane often in gold. Delicate painted patterns also occurred upon the faces of the flat modeled patterns. For years in Spain at the Alhambra and the Alcazar, the colored walls of the Moors suffered abuse and at each epidemic of cholera they were white-washed until the successive coats obliterated the designs.

When in recent years these coatings were removed much of the color was destroyed, and in the attempts to restore it the same thing happened that occurred with the restoration of Greek polychromy, i. e., if an indication of a color appeared it was spread over the entire surface of the unit upon which it existed. Each plane was restored with its local color not only on its surface but carried down on its edges or reveals until it met the color of the next plane. There was, therefore, no definition of each color area by white at its edges. The restorations, whether in the small mosque of the Alhambra, or in Owen Jones' restorations in the Crystal Palace in London, were most confused and unsatisfactory, the tones fusing together without definition. But in examining this work of the Moors I failed to find any color on the reveals, and the result was most extraordinary in its subtlety and the white reveals were like an exquisite pattern of lace drawn over the colored patterns, isolating and clarifying them, changing in its delicate tones of white with every change of angle of the light, and was almost opalescent in its effect. This must have made the patterns of the Moors in the Alhambra one of the most exquisite and vibrating color decorations imaginable.

The Mahomedans seem to have thoroughly comprehended that tile was not a constructive form of material, but that it was a wall covering, and their tiles

were cut to the shapes of their patterns, as if they were a large-scaled mosaic. Each unit had its own color and colors of similar tones were separated by ribbons of white.

There was in the past, therefore, no apparent theory of color combinations. The principal desire seems to have been to have the colors clear and intense, unconfused with adjacent colors and therefore separated from them. Few neutralized colors occur, and naturalistic color often affects the choice of color.

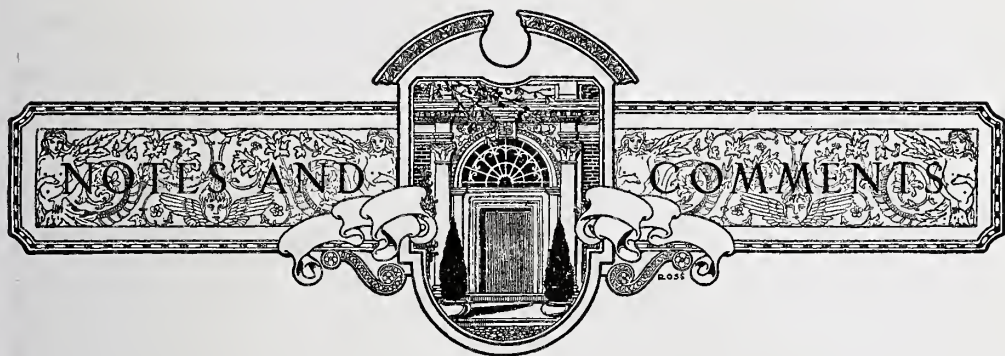
It is reserved for modern research to evolve theories of color. Into any manifestation of nature and of man's accomplishments, can be read a systematic order, for order underlies all successful work, and the desire for it induces theories in regard to it.

But certain physical facts, which are undoubted, are worth consideration. The theory is simple, in fact it is not a theory, but a fact. By a prism white light can be resolved into the rainbow, that is, the prismatic spectrum. Of the consecutive colors in the spectrum, three, the so-called primaries red, blue and yellow, are integral. The intermediate colors are from combinations of the primaries, those resulting from the mixture of two of the primaries being the secondaries, violet, green and orange. The prismatic colors are of full intensity, unneutralized. As white light subdivides into the primaries and their combinations, a mixture of all three of the primaries created no color, neutrality, and the combination of a primary and its complementary secondary, i. e., the color made from the two remaining primaries, creates no color.

That is, a primary and its complementary cancel each other.

Each pair, red and green—blue and orange—yellow and violet—cancel each other, annihilate each other. The best graphical statement of this fact is made by the circular prismatic spectrum, in which each color has, directly opposite to it in the circumference of the circle, its cancelling color. It is obvious that cancellation is accompanied by conflict, and conflict in color combinations is undesirable, except when violent sensation is desired. It is equally obvious that there will be no conflict if the use of complementaries is avoided; and it tends strongly to cause an effect of harmony if one color and its immediate changes into the adjacent colors in the spectrum is made the dominant of the color scheme. The use of any third of the circular spectrum is therefore perfectly safe, and contrasts are obtained by the introduction of small areas of the colors in the other two-thirds of the spectrum.

The problem of neutralization towards white in tints, towards black in deep tones, and towards neutral grays in middle tones is a further development of these elemental facts. In architectural polychromy, as it is to be seen at an appreciable distance, the colors require clarity, definition, and the dominance of some one color in the whole or in each of widely separated parts. Definition is gained by the separation of similar tones by white, black or gold, and by the accent of high lights in carving or modelling by light color or gold, and of shadows in hollows, etc., by dark tones. Apart from this and transcending it is the genius of the artist.



**Pittsburgh
Architectural
Club
Exhibition**

The thirteenth annual exhibition of the Pittsburgh Architectural Club, held at the Carnegie Institute Galleries, December 9-24, was perhaps the most interesting, if not the most ambitious of the many that have marked the architectural progress of the club from year to year. It presented a contrast with that of last year, where the hundred odd delightful European travel sketches of one member alone drew largely upon the attention and excited the ambition of the draftsmen visitors, but gave little pabulum for architectural growth and progress.

Of the three hundred and thirty-eight catalogued exhibits, all but thirty-one represented in one form or another the work of Pittsburgh architects. With a set intention of making this year's program one of exact representation of the "days' work" of members and the architects of the city, the subjects decorating the walls of the three galleries given to the display presented almost every description of constructed form and, without any notable exceptions, a uniform standard of high achievement in design.

Yet so varied in subject and distinctive in rendering were the exhibits that the collection was full of variety, and each sketch or scale drawing excited study because of its practical application to the work on the boards.

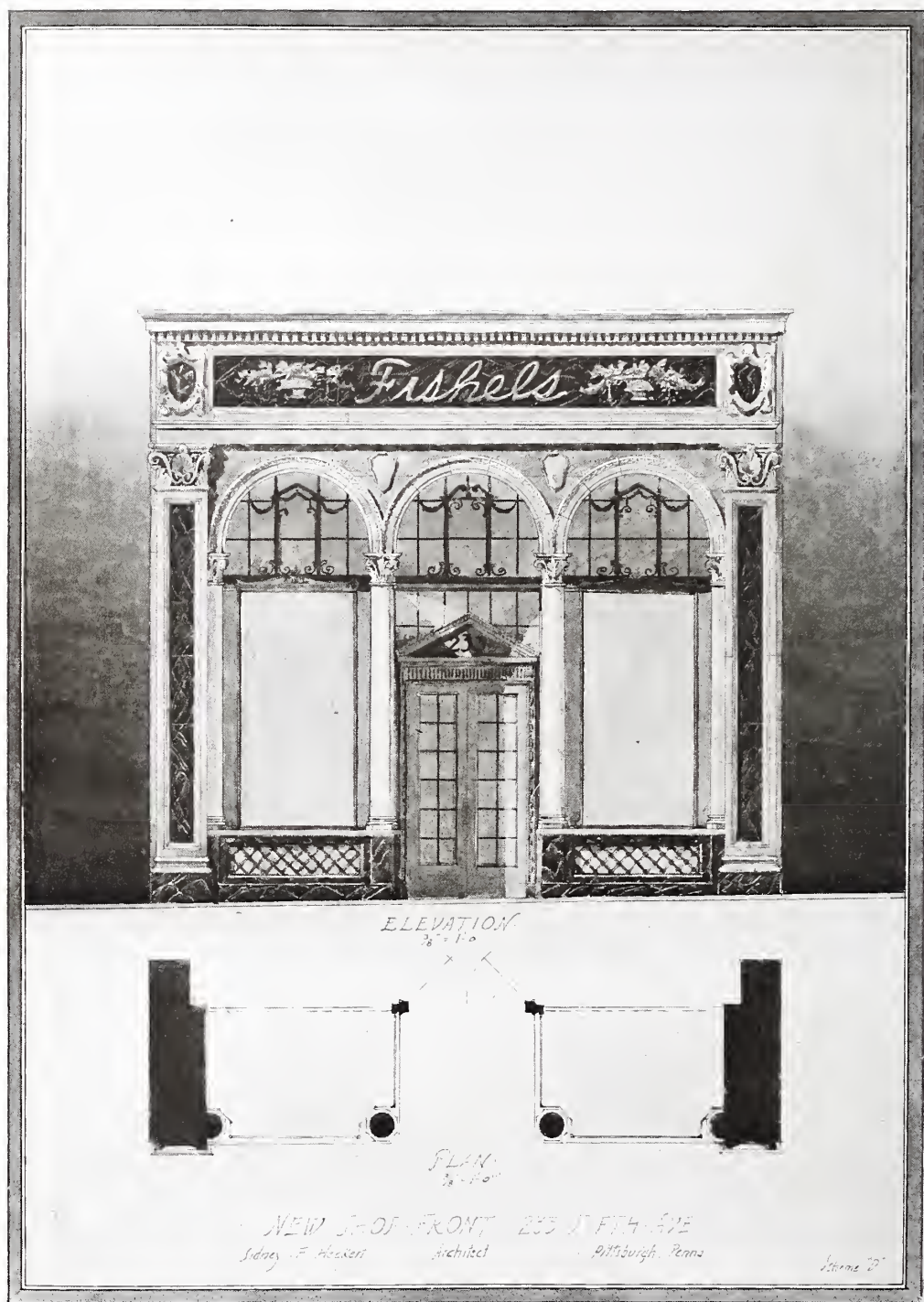
Again, without in the slightest degree breaking in upon the architectural design idea, there were diversions enough to embellish and lighten the more serious architectural theme. Henry Hunt of Pittsburgh, for instance, showed some unusually delightful effects in stained glass design, the sculptor G. Moretti struck a new note in memorial monuments with his "Battle of Nashville" memorial shaft and his "Spirit of Aviation," and Frank Vittor presented an Italian Renaissance fountain of skilled workmanship. To many draftsmen the drawings

executed by Burch Burdette Long were worth the "whole show."

Through a request from the club, drawings of buildings of national note were sent by the firms of Heimle and Corbett, McKim, Mead and White and Bertram G. Goodhue of New York. The first named firm also sent models that were of special interest. The "Stanford White Memorial Doors" were specially studied in the McKim, Mead and White collection

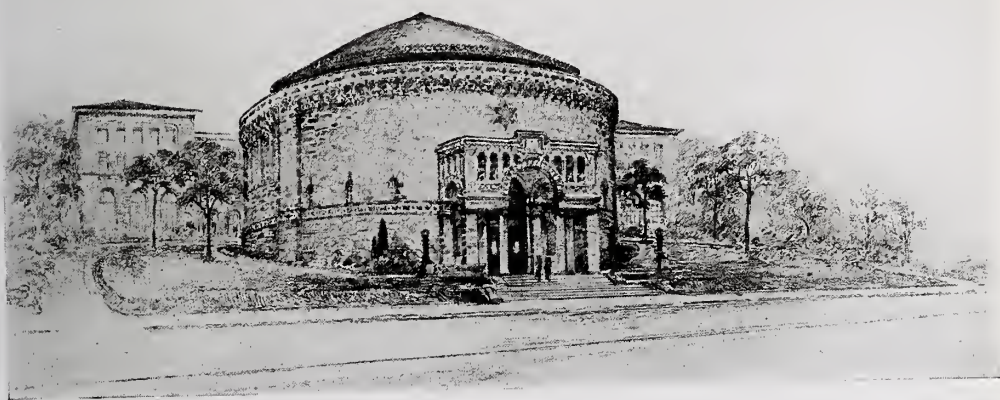


SKETCH OF PROPOSED PEOPLES INSTITUTE
OF PITTSBURGH, PA.
Thomas Pringle, Architect





PLACE DE LA CONCORDE, PARIS, FRANCE
Sketch by J. Vernon Wilson, Architect



The Architectural Record

March, 1923

B'NAI ISRAEL SYNAGOGUE AND COMMUNITY CENTER



Y. M. H. A. BUILDING, PITTSBURGH, PENNA.
Benno Jassen, Architect



The Architectural Record

March, 1923

RESIDENCE OF JOHN B. SEMPLE, ESQ., COCOANUT GROVE, FLA.
Kiehnel & Elliott, Architects

and the drawings sent by Mr. Goodhue of the Kansas City Memorial gave place even to his splendid conception for a State Capitol for Nebraska. The entire collection from these New York architects, thirty-one in all, was given a special hanging in a room by itself, and there were usually a number of draftsmen there studying both the rendition and the form, particularly of those that in competition with the most talented had been accepted as the best. The club members strongly appreciated the courtesy of the architects who sent the drawings and so aided in making the exhibition an artistic success.

Although the Pittsburgh Architectural Club is not unique by reason of the large number of practicing architects among its membership, its well sustained personality and the endeavor to make it what such a club ought to be through a long term of years, has caused many of those who graduated into practice from its ranks to retain both membership and an active interest in its work.

Perhaps the answer to the uniformly high grade of draftsmanship noted in the exhibition may in part be found in the sketch problems that form a feature of regular meetings and in the Sketch Class that, under the direction of Oliver J. Robling, aids in the development of the sketch instinct that always seems to be part of the true designer.

The problems, which occupy an hour in their rendition at regular meetings, are always interesting, sometimes serious and touching upon the practical, and as often call upon the ingenuity of each participant as well as his skill in drawing. One of the latter, submitted upon request by a warm friend of the club, Henry Hornbostel, was unique in its conception and when studied lost its apparently frivolous appearance in the many practical points it brought to the designers' attention. It is worth reproducing here in this attempt to give some impression of the club and its work as illustrated by the exhibition.

The problem, in which the usual money prize of ten dollars was offered, was competed for by about twenty of the members, and was as follows:

SUBJECT: A GONDOLA SUSPENDED FROM A BALLOON FOR TEN FLAPPERS.

"The gondola will be built by a colony of ten flappers who have left home on account of the restraints imposed on them by prudish parents and relatives. They have lots of money in their own right and propose to enjoy life to the full. The gondola will be used for gay parties and for sightseeing, and a chaperon will accompany the ten. It will have all kinds of electrical conveniences, heating apparatus, toaster, curling irons, etc., and will be equipped to remain in

the air twenty-four hours. All home comforts but no home restraints, is the flapper's motto. Toilet facilities are desired, but baths are not required. A wireless outfit for entertainment will be installed in the gondola and the balloon cabin will have its own wireless for navigation purposes. PRESENTATION.—The gondola will be shown on elevation or perspective as the competitor prefers, but a section drawn to scale must be made. The balloon with its navigation cabin will not be shown, but the suspenders should be indicated."

The fine spirit and enthusiasm that signalize the club membership and the humor that enters into and lightens the serious problems of the day will also be evidenced by the designing of costumes for the coming Beaux Arts costume ball, in which the Associated Artists of Pittsburgh, the Pittsburgh Chapter A. I. A. and the Pittsburgh Architectural Club will participate.

R. C. M.



ST. FRANCIS DE SALES CATHEDRAL,
TOLEDO, OHIO
Comes, Perry & McMullen, Architects

Mr. Frank M. Andrews, architect, has re-established his offices at 221-223 West 57th Street, New York, and has associated with himself, Mr. Harry M. Prince and Major D. Gutman, the latter being in charge of the structural and mechanical engineering departments.

Mr. Lewis Davis Brumm has opened offices for the practice of architecture, at 412 Calumet Building, Miami, Fla., and desires manufacturers' samples and catalogues.

Messrs. Pendleton S. Clark and Walter R. Crowe announce the formation of a partnership for the practice of architecture, under the firm name of Clark & Crowe, with offices in the Krise Building, Lynchburg, Va. Manufacturers' catalogues and samples requested.

Notice has been received of the removal of Mr. I. L. Crausman, architect, to 370 East 149th Street, New York.

Mr. John J. Donovan announces the removal of his offices from 512 Pacific Building to Tapscott Building, 1916 Broadway, Oakland, Cal.

Mr. M. Louis Kroman announces that he will be engaged in the practice of architecture and engineering, with offices at 921-922 Woodward Building, Birmingham, Ala.

Messrs. Weston and Ellington, architects and engineers, announce the opening of their offices at Suite 1507, Stroh Building, Detroit, Mich.

Messrs. Walter F. Price and Wm. McKee Walton, architects, have associated under the name of Price & Walton, and will carry on business at 119 South 4th Street, Philadelphia, Pa.

Mr. William F. Stone, Jr., formerly associated with the late Otto G. Simonson, architect, desires to announce that he will continue his practice at 1122 Munsey Building, Baltimore, Md.

Messrs. Walter E. Ware, A. I. A., and Slack W. Winburn announce their association as architects and landscape architects, under the firm name of Ware & Winburn, 610 Utah Savings & Trust Building, Salt Lake City, Utah.

Messrs. Webber, Staunton & Spaulding, architects and engineers, announce the formation of a partnership, under the firm name as above, with offices at 1017 Hibernian Building, Los Angeles, Cal.

Mr. H. H. Whiteley, architect, announces the removal of his studios from 520 South Western Avenue to temporary quarters at 5912 Hollywood Boulevard, near Bronson Avenue, Hollywood, Cal.

Mr. Herbert Wood, 1-2 Stock Exchange, Collins, Melbourne, Australia, is desirous of receiving manufacturers' samples and catalogues.

Mr. Harry B. Mulliken, architect, announces the removal of his office to 4944 Grand Central Terminal, New York.

The
ARCHITECTURAL
RECORD



APRIL 1923

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The ARCHITECTURAL RECORD

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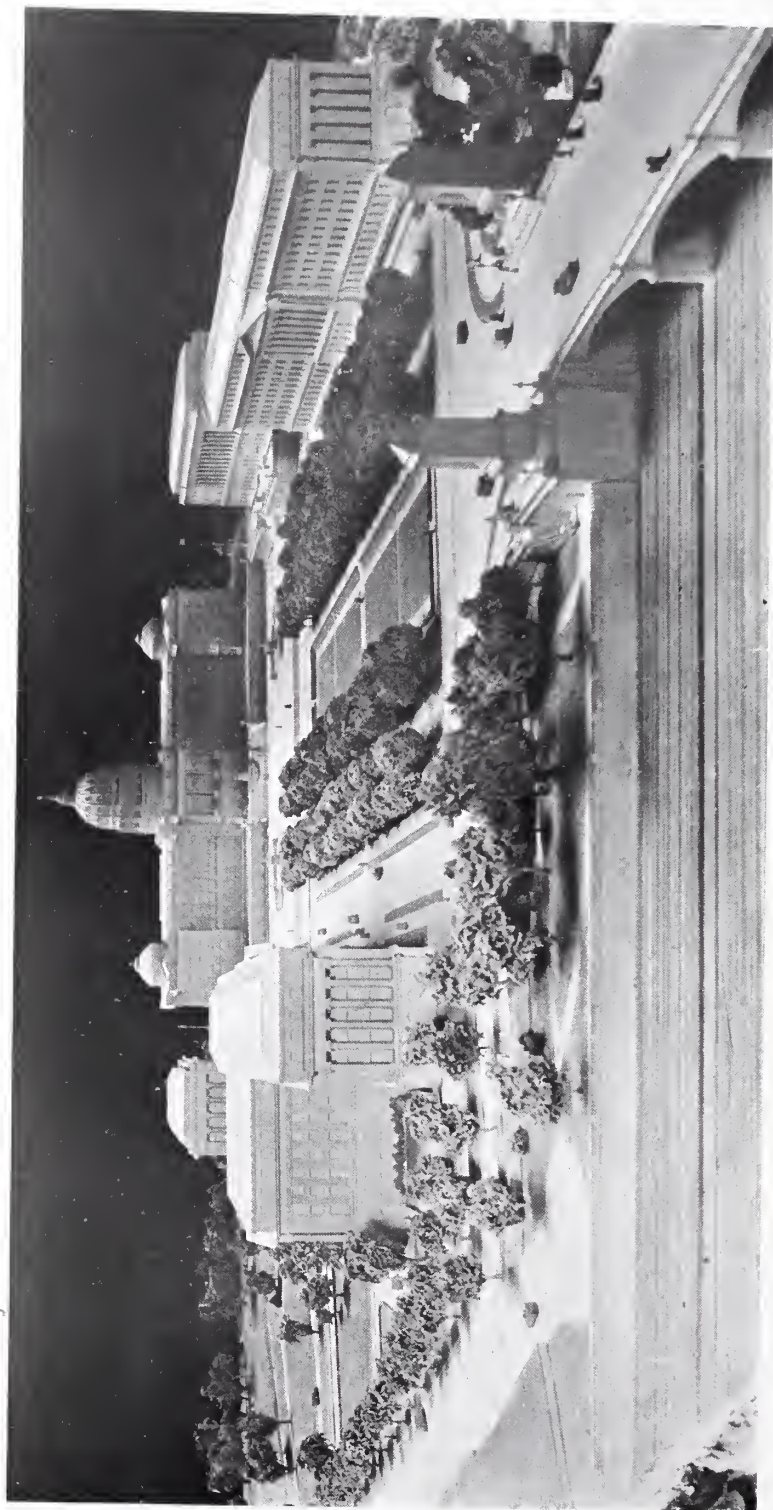
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The Architectural Record.

Scale Model of the Buildings, Grounds and Approach.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.

April, 1923

The ARCHITECTURAL RECORD

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NUMBER 295



CAPITOL PARK

HARRISBURG, PA

ARNOLD W BRUNNER, ARCHITECT



By Matlack Price

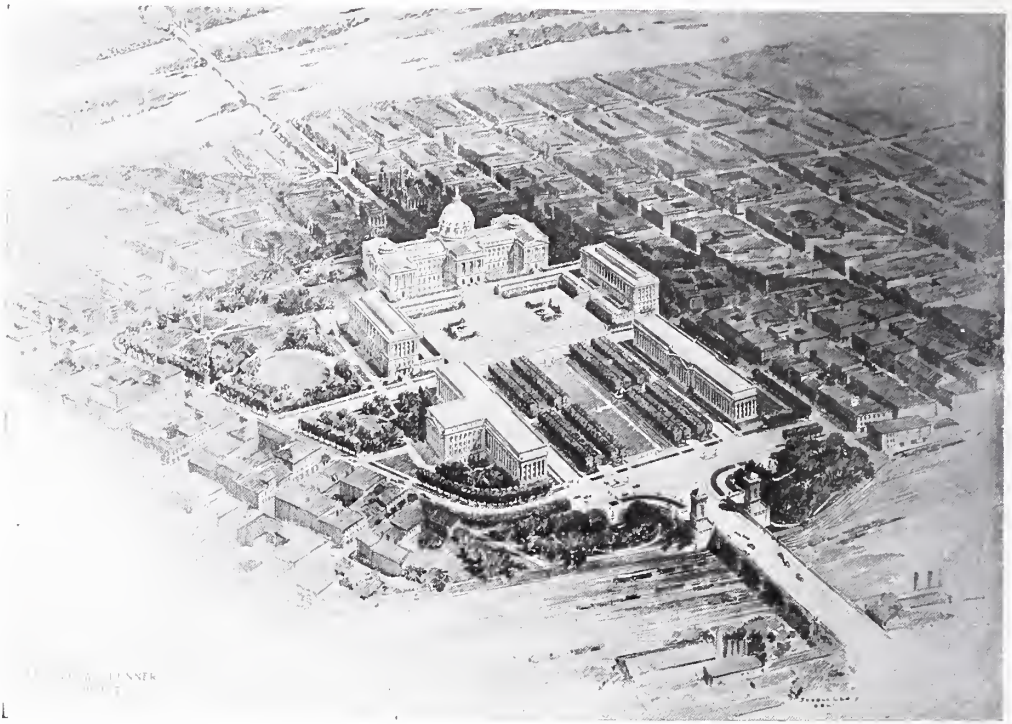
ONE OF THE weakest points in the attacks of the opponents of the Beaux Arts, architecturally, is their failure to suggest any architectural system to take the place of axial planning. This thought comes to mind most naturally in studying any project such as a State Capitol or a civic group, and also the feeling that formal and conventional buildings, arranged by a formal and conventional method, are especially infuriating to the expressionists who, not content with demoralizing painting and sculpture, often make gratuitous observations about architecture.

These exponents of esthetic enlightenment are particularly violent on the subject of classic architecture, which they affirm holds no meaning for the present age, and which fails to "express" anything but the reactionary tendencies of

our architects. If it were true that classic architecture holds no meaning for the present age, the present age might well be despaired of, and if it expresses nothing, by what other means are we to express dignity and order? I suspect, however, that dignity and order are two ideals which the expressionists feel are especially unimportant in the emancipated age in which they imagine themselves as living.

All of which is not entirely beside the point, for it is our distant view of the State Capitol which is at present in the making at Harrisburg, Pennsylvania—and as we draw nearer, unusually interesting things in its plan become apparent.

Of all large architectural projects, State Capitols, perhaps, have always seemed to the layman to hold the least personal interest for him. Their very purpose has too often seemed quite unrelated to the



Perspective Drawing.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.

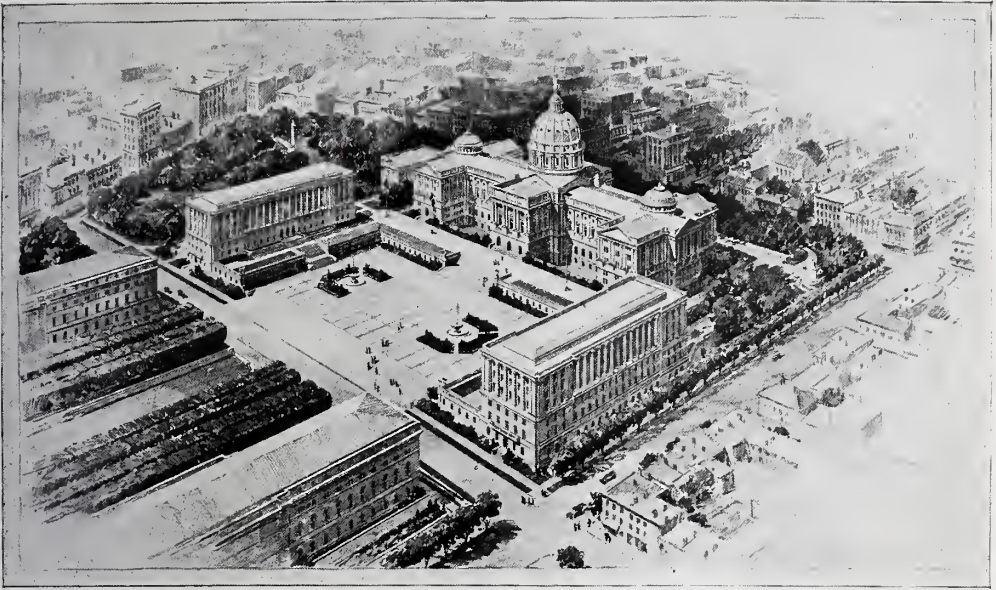
lives of most of the State's inhabitants. A dignified and impressive architectural figurehead, yes—"a credit to the commonwealth"—but what else?

Is the remoteness of architecture from everyday life the fault of architecture, or of the people? Or is it the fault of the architect, whose function is to interpret architecture to the people, and make it a part of their lives? The Bolsheviks of the Fine Arts hasten to assure us that it is partly the fault of architecture and mostly the fault of the architect. He is, of course, a reactionary, and most good architecture is bourgeois. What, then, of the Greeks and Romans? Their architecture was a part of their lives. They thronged the steps to the Acropolis, and congregated in the Forum. The Romans built great bridges and monumental arches which were expressive of their tastes and aspirations, and closely related to their lives. Have we no tastes or aspirations? It seems as though there

is something the matter with present-day people rather than with architecture, and that the architect is a voice in the wilderness and striving to give back to the people something very fine and beautiful that they have somehow grown away from.

I have always maintained that any person entering New York City through the Pennsylvania Station, and walking through its great concourse, must go on about his affairs with a psychologically uplifted mind, whether or not he consciously attributes it to the inspiration he derives from the pure architecture of the place. The pedestrian, walking up Fifth Avenue, with the store fronts crowding toward him on the sidewalk, feels a real sense of emancipation as he walks for two blocks before the Library, where broad steps, an architectural terrace, and the dignified background of the building seem to suggest a sense of spaciousness which registers itself in mental reaction.

Architecture, if it is to mean anything,



Perspective Drawing.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.

if it is to give people any such spiritual stimulus, must be something more than merely columns and arches. The use to which these are put, be they Greek, Roman, Renaissance, Byzantine or what not, is the true measure of architecture. Architecture must provide arcades, terraces, court-yards, concourses — places where people can walk and meet. People cannot participate in a façade: they can only look at it as they walk past, if they are not too engrossed in other matters. But they cannot walk through the Pennsylvania Station without feeling its mighty architectural influence, no matter how preoccupied they may be.

A speculative inquiry was made as to who or what may be to blame for the prevailing indifference to architecture, and the foregoing paragraphs may perhaps have contained a part of the answer. The architect, certainly, has not always made the most of opportunities to invite public participation, even in public buildings. He has kept architecture rather aloof, and natural public indifference has done the rest. I once introduced a man to a new world by calling his attention to the tops

of some of the new buildings in the vicinity of 42d street in New York. He had been hurrying hither and yon in this neighborhood for years, but had never looked above the level of the store windows. There are many of him, and yet the architects, for the most part, gave no small amount of studious thought to the tops of their buildings in a sincere endeavor to so design them as to add something to the sum total of the world's beauty—if anyone cared enough to look up at them.

The point of this article is to bring out the extent to which a State Capitol may be made personal, and related to the people of the State. There is a distinct element of popular appeal, certainly, in the project for the Pennsylvania State Capitol, which is being carried on by Arnold W. Brunner, whose broad visions of city planning have contributed much to the enlargement of architectural thought in this country.

The original State House, no longer new, had long been outgrown by the official business of the State, and an enlargement of its accommodations became



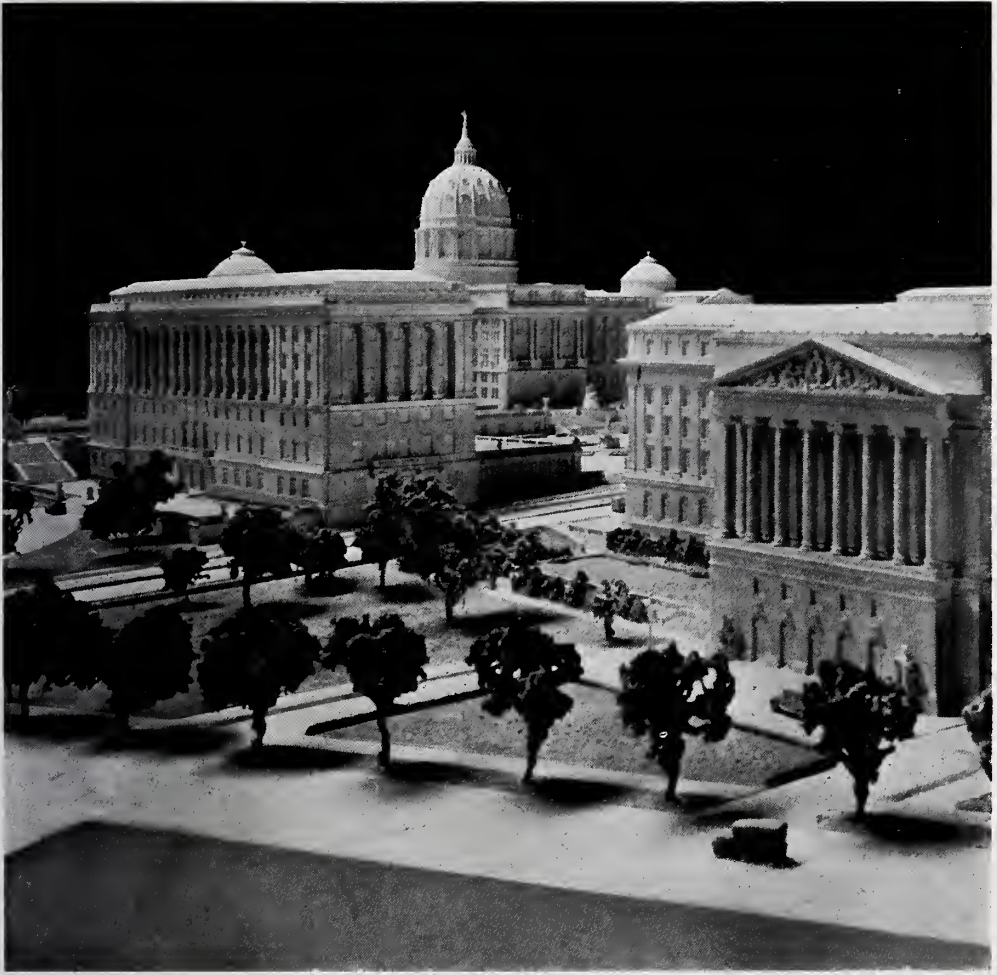
Photograph of Scale Model Showing Group from the Bridge Approach.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.



Photograph of Scale Model Showing Group from State House Front.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

The Architectural Record.

April, 1923



Photograph of Scale Model with Vista into the People's Court.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.

increasingly more urgent. Called in at this juncture, Mr. Brunner had not the advantage of planning an entire new Capitol group, but was confronted with the problem of carrying on with the present building as a point of departure, and adding to it such extensions or related buildings as would meet the needs of the State's growing business.

The existing building, certainly, afforded no stimulating inspiration. To design further in the same manner would be unintelligent and unproductive; to design further in a manner to eclipse the

present structure (not a difficult feat) would be to do the State no architectural good service, and, according to the architect's honest convictions, would show him to be more an egotist than an architect. The new plan, as Mr. Brunner visualized it, must be at all events courteous to the old building, and, if possible, tend even to glorify it and make it, by approach and setting, look better than it actually is.

The main portion of the new development, which will be known as Capitol Park, is planned at the rear of the pres-



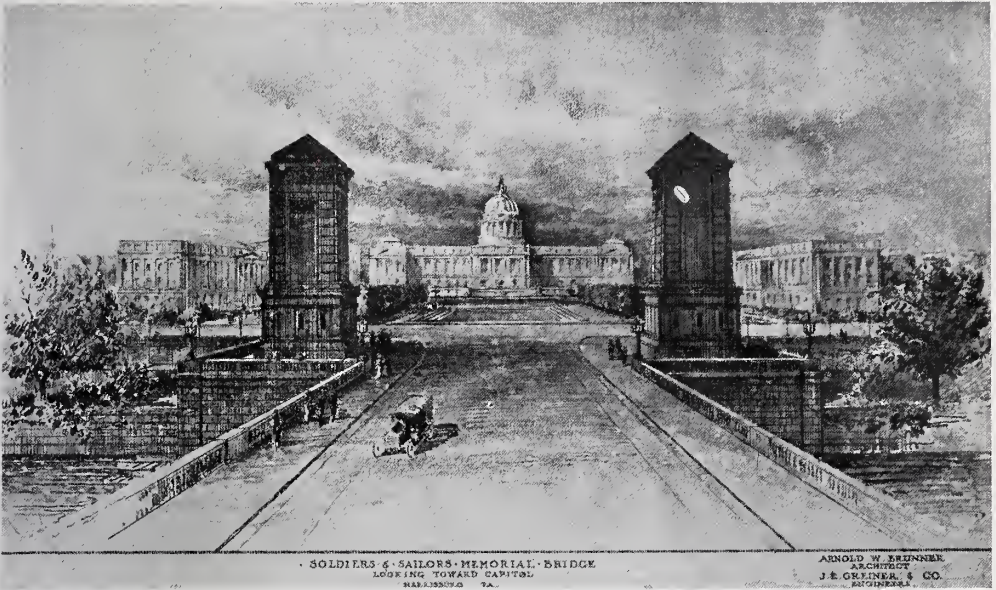
Rear Approach to Existing State House: Undeveloped Condition.
PENNSYLVANIA STATE CAPITOL, HARRISBURG, PA.

ent State House, and provides an approach from this direction which combines a high degree of architectural dignity with the utmost simplicity. It is this studied simplicity that accom-

plishes the setting for the old building. Toward the bettering of its front elevation little could be done, but a correction of one great fundamental error was made. Two illustrations show the error



Rear of Existing State House: Undeveloped Condition.
PENNSYLVANIA STATE CAPITOL, HARRISBURG, PA.



New Approach to the Capitol Group.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

and the correction. As it stood, the appearance of the front was unstudied and unarchitectural—a building of obviously horizontal intention presenting a distinct feeling of verticality. Certain traits of the detail might well be wished otherwise, but this basic contradiction in architectu-

ral expression was far more important than all else—yet a remarkable transformation was effected by the addition of an architectural terrace and the widening of the stairway. It is extraordinary the degree to which the over-emphasized verticality of the walls flanking the old



The Treatment of Rear of State House.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.



Front of Existing State House: Undeveloped Condition.
PENNSYLVANIA STATE CAPITOL, HARRISBURG, PA.

stairway added a distinct verticality to the façade of the building beyond.

It is at the rear of the State House building, however, that the effectiveness of simple axial planning and the scope of the architect's vision are conspicuously apparent. A short study of the general view of the scale model, or one of the bird's-eye perspectives, will give a complete idea of the present building in its relation to the proposed development.

On axis with the dome and central feature of the present State House is a broad court-yard, and, approaching this, a great parked space, flanked by two tree-shaded malls. The portal to this is formed by the two pylons of the Soldiers' and Sailors' Memorial Bridge, which will span the railroad tracks, connecting the Capitol grounds with the high point of the city at 13th street, half a mile away. Ultimately, it is planned to span the Susquehanna River with a monumental bridge on axis with this and the State

House dome, thus relating the Capitol group with the whole city plan.

Right and left of the court, and near the State House, are two office buildings, uniform in design, and of these one is now nearing completion. Right and left of the park space are shown two future buildings, the first to house the State printing plant, and other State activities and departments, the second to be called the Educational Building, to provide a large public auditorium, with a public entrance to the avenue which flanks the group on the left.

So much for the mere designation of the several buildings and parts of the plan—a guide-book duty, but no more than that. What of the governing vision, and the great human intention which is expressed here, and expressed, from the nature of the project, in architectural terms?

The intention, in brief, was to create a group of public buildings in which the



New Terrace Treatment of Front of Existing State House.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

public could really take a part; to create a State Capitol which could mean something to all the people in the State, and to provide, at the same time, a practical solution for the growing needs of the State's legislative and executive functions. For gradual growth a unit system in plan is the most logical, because it is the most economical, and may proceed in pace with actual needs.

The architectural means by which the public is to find physical participation in the new Capitol Park is accomplished by the great court, five hundred feet in width, enclosed by the walls of the State House terrace and the terraces of the two office buildings. Two monumental fountains break the expanse of the court, and in the center of the broad stairway to the State House is planned a semi-circular rostrum from which public gatherings can be addressed, and inauguration ceremonies can be effectively staged.

In the architectural manner of the court there will be nothing austere or forbidding, although a fine dignity is the prevailing note. The terraces and the fountains will express something of the spirit of Versailles, in a way calculated to relate the tall Renaissance façades of the office buildings to the desired intimacy of the court, which it is proposed to call the People's Court. This name broadly designates its intention: the people of the State of Pennsylvania are invited to use the entire great enclosure which is bounded on three sides by the buildings of the Capitol group. There may be band concerts here, and all manner of gatherings which will bring the people into the heart of the group.

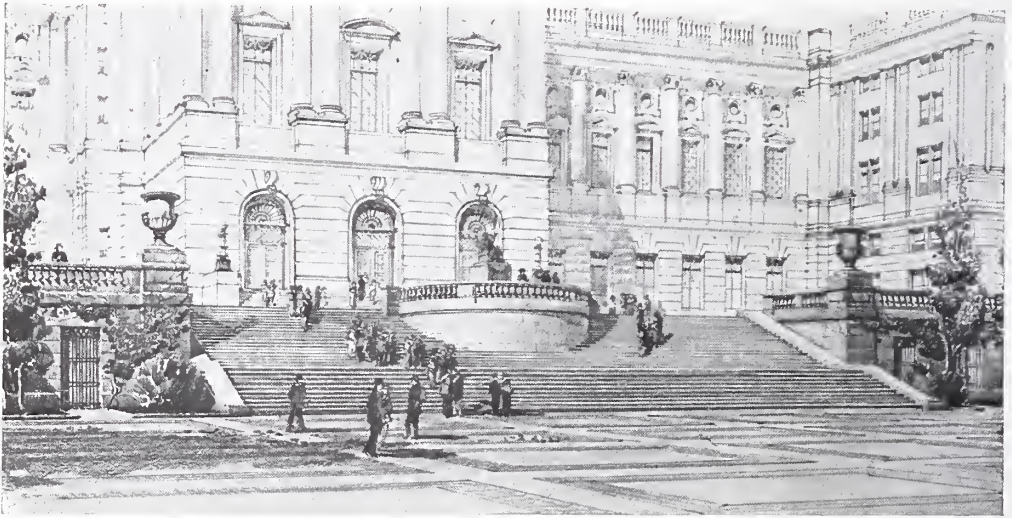
This is, in fact, one of the most significant and unusual of the elements of the Harrisburg plan. The grounds of the Capitol are to be used and enjoyed, with the architecture, as represented by

the surrounding buildings, acting as a background for human life. If people more definitely lived with architecture, no doubt more architecture would be created with which they could live—and *vice versa*. Certainly the People's Court is a definite step in the direction of breaking down the artificial barrier of formality and impersonality which has so long made architecture one of the least known and least enjoyed of all the arts.

Architecture, in the hands of a sympa-

than an expression of formal architectural grandeur, the architect substituted a grass plot, with walks. Benches beneath the trees along the two malls will offer pleasant invitation, and the spirit of the entire treatment will be that of a gracious park rather than of a forbidding group of conventional buildings.

As a culminating feature to be added to the People's Court at some future date, the architect envisions a great allegorical figure on the terrace above the rostrum,



Rostrum in the People's Court.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.

thetic architect, can forsake its pedestal, come forward to meet people and give them something. The enjoyment of architecture is a part of the birthright of any civilized people, and architecture is a stranger in popular life because it has too often come before us in impersonal and austere guise. If it would have its beauty acclaimed by the multitude it must first take the multitude into its confidence and show them that it holds a real meaning and a real use in everyday life.

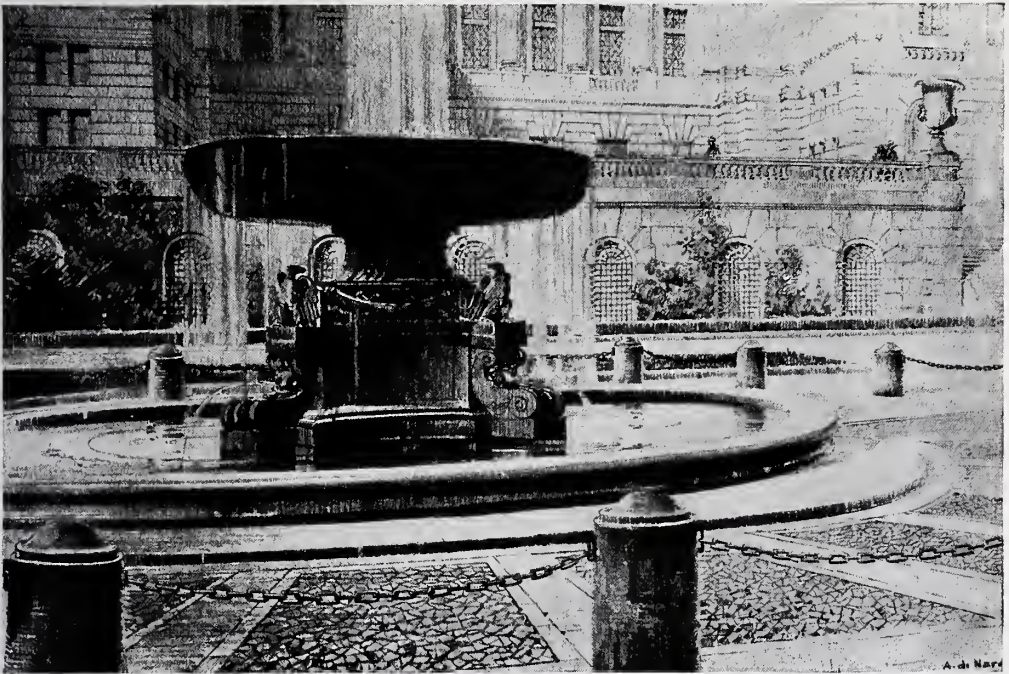
It was originally planned to occupy the space on the main axis, approaching the court, by a pool, but with the second thought that for several months of the year the pool would be a negligible factor, and that at best it would be little more

powerfully and benignly brooding over the destinies of the State. The fountains in the court are of peculiarly happy design, and in the same spirit of rather intimate monumental architecture that is apparent, too, in the design of the stairways to the terrace.

The illustrations, made from photographs of the scale model, give an exact idea of the relationship of the court to the group as a whole, and of these photographs one of the most interesting is that showing an oblique glimpse of the court, seen between the left office building and the Educational Building. The central stairway with the rostrum can be seen, and also one of the fountains. The avenue which cuts through Capitol Park at



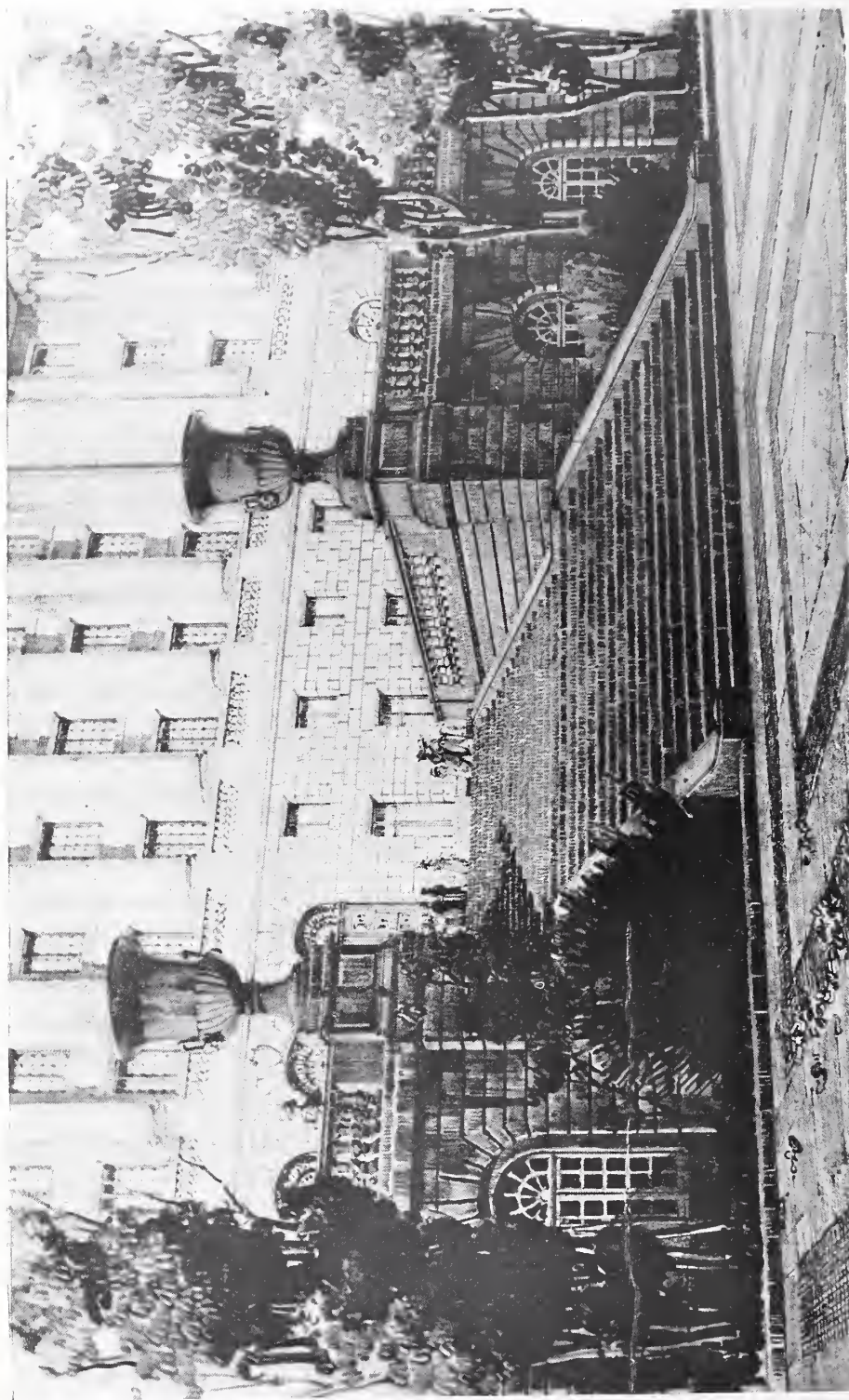
Portion of the Scale Model Showing the People's Court, Terrace, Rostrum, and One of the Fountains.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.



The Architectural Record.

April, 1923

Project Drawing of One of the Fountains in the People's Court.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.



The Architectural Record.

April, 1923

Project Drawing of One of the Stairways from the People's Court to the Office Building Terrace.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.



Office Building, Terrace and Stairway in Construction.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

this point (Commonwealth Avenue) does not at all destroy the unity of the group, nor does the Bridge Plaza, crossing between the whole group and the Memorial Pylons of the bridge.

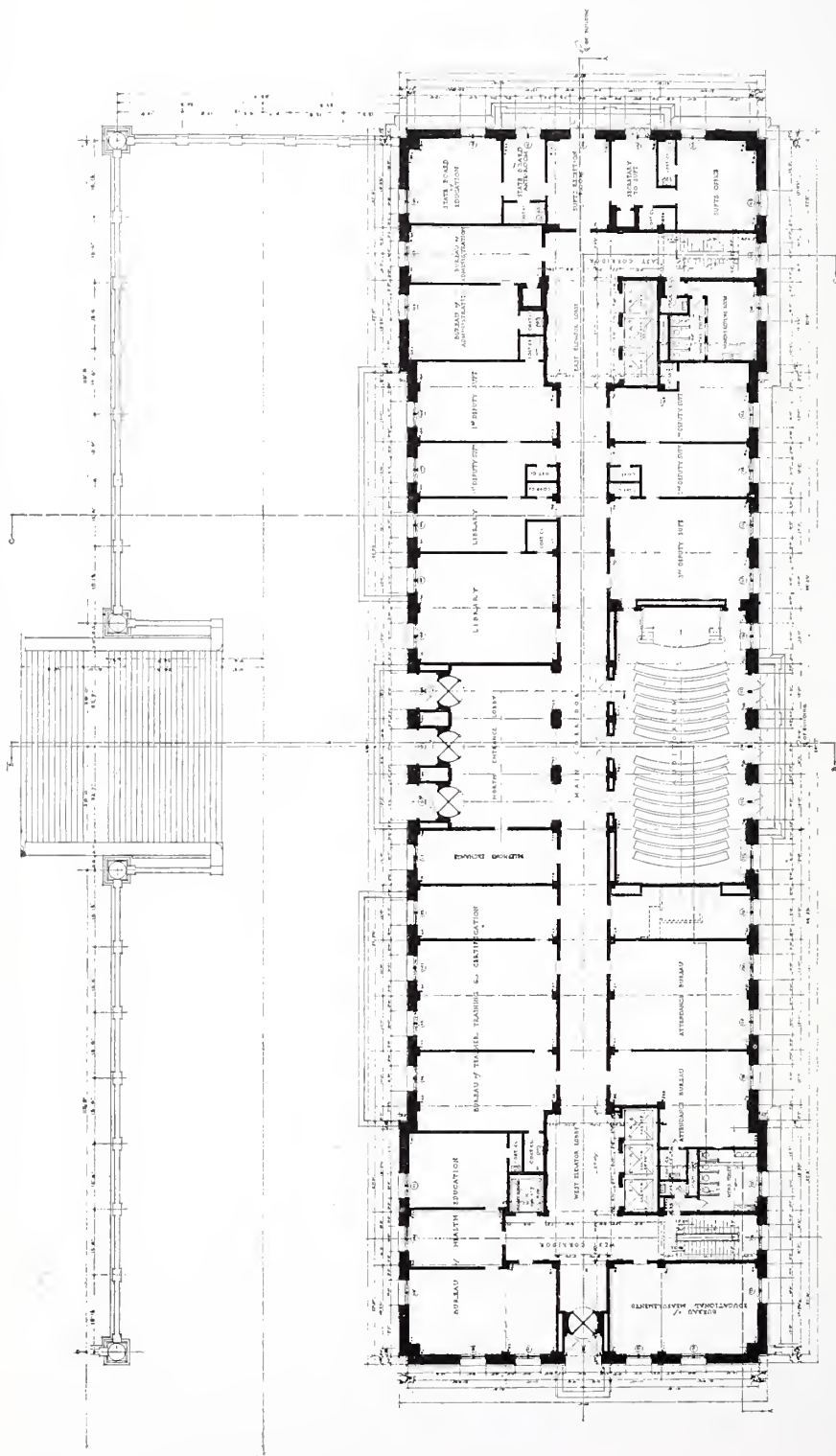
A study of this photograph, as well as the others which show the model from outside, reveal the interesting fact that the group was by no means designed with thought only of its appearance from within. No one of the buildings has an unsightly "back yard," and each is uniform in its treatment on all four sides. The roofs, moreover, have been kept free of tanks, elevator towers and deck-houses, so that nothing in the distant general view of the whole group will interfere with the convergence of vision on the State House dome.

The street elevation of the Educational Building with its pediment and colonnade affords an interesting variation in the treatment, and designates the function of this portion of the building as being a part of the city as well as of the State group.

In the planning of this immediate and

future development for Harrisburg and the State of Pennsylvania, Mr. Brunner has provided no inconsequential argument for the permanent worth of ordered, Classic architecture as a means of expression. The plan as a whole is excellently expressive of the growth of the State's requirements as well as of the architect's intention of providing a park for the people and a rallying point for the whole State. It is a plan of the utmost logic from a practical point of view, and a plan of fundamentally large vision from the abstract architectural point of view.

Years ago Daniel H. Burnham, another city-planning architect endowed with broad vision, said: "Make large plans. . . ." I have not access to the rest of the quotation, but it went on to point out that "small plans," plans meagre in vision, never grow larger in execution, and that one of the inherent peculiarities of a truly large plan is that any part of it is large, is imbued, that is, with a "large effect." The Harrisburg plan is inherently large. It is not a compromise, al-





The First Office Building in Construction.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

though its point of departure had necessarily to be the existing State House. To base a noble scheme upon this, and to so plan the new buildings that the old would be enhanced, not eclipsed, was no mean architectural feat. There were, too, the natural restrictions of the available site, and the problem of the approach, but all these elements are reconciled in the plan, and made to seem an integral part of it.

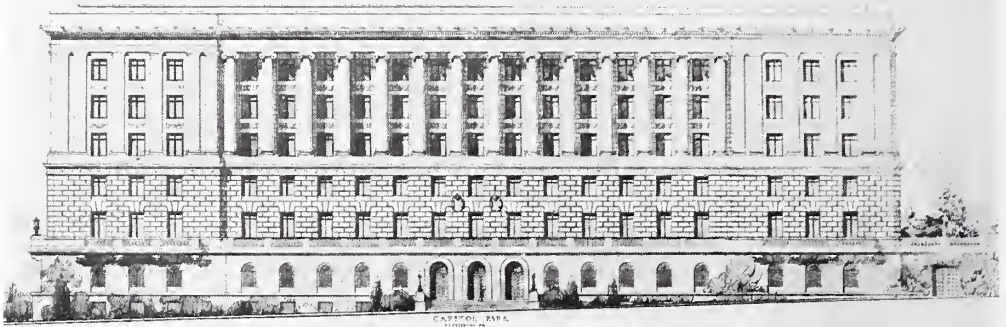
The individual buildings do not contradict the existing building on the score of style, though they are designed in a far more scholarly manner, and express in dignified terms their purpose as important buildings in a Capitol group. There is in the adaptation of Italian Renaissance architecture a far greater range for humanistic qualities than exists in strictly classical adaptations, and its choice in this group was a fortunate one. Renaissance architecture, being a highly developed and almost modernly articulated style, affords a far wider opportunity than Classic architecture for the treatment of interiors, and of such details as elevator fronts and formal halls and lobbies.

Such a plan for "a noble official forum" presents an opportunity to the State of Pennsylvania, and one which should reflect a due measure of credit upon all who are identified with its execution.

The plan of the office building which is now under construction discloses a direct and simple plan which is expressive of the building's purpose. An entrance lobby is provided which is susceptible to more or less architectural embellishment in the way of mural decoration or other elaboration, and this leads to a marble lined longitudinal corridor which gives access to the offices and leads to the two elevator lobbies, which, again, may receive a certain amount of architectural elaboration.

The most unusual feature is the small auditorium, designed for committee meetings and delegations to the Capitol, for matters which call for special discussion or instruction. No provision for such a convenience exists in the present State House, and the auditorium idea represents one of the more recent developments of modern efficiency. Industrial groups now plan for an auditorium in the executive building, or in some other part of the plan, in order that talks may be given to salesmen or department heads on matters of policy or procedure. This method has the advantage of giving the same information or instruction to a number of people at the same time and in the same language.

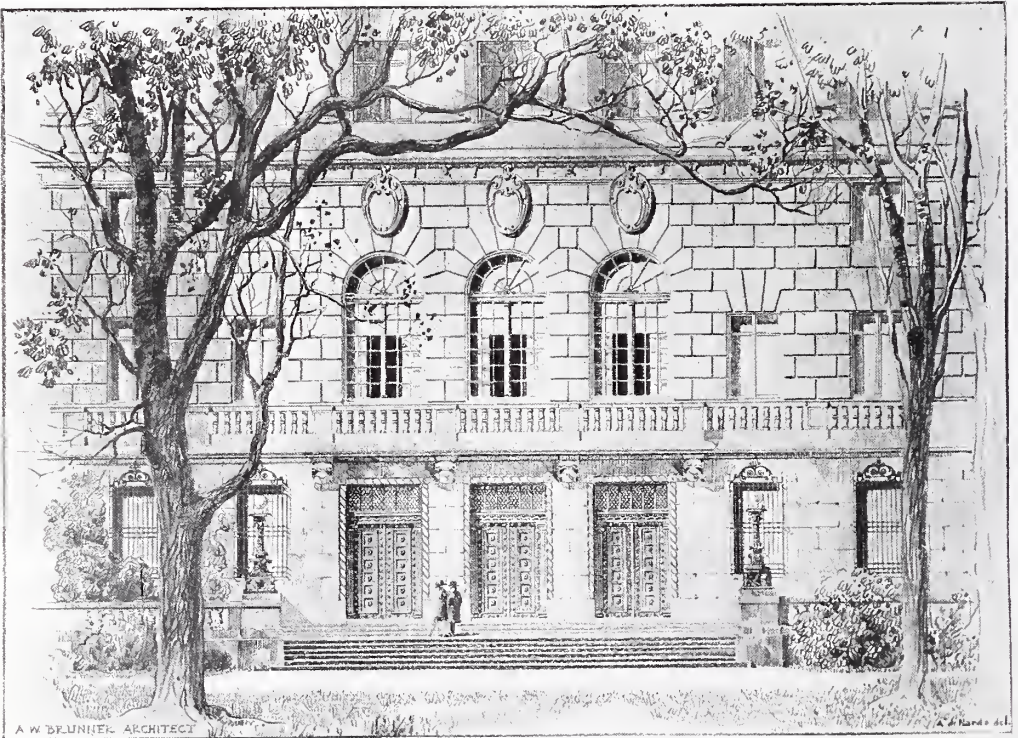
The auditorium in the Harrisburg Cap-



Elevation of Office Building.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

itol office building is also equipped with a concealed projecting room, so that talks can be supplemented when necessary by lantern slides or motion pictures.

The entire treatment of the individual offices is one of the utmost simplicity and efficiency, as befits the working environment of today.



Detail Drawing of Office Building.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.



The Architectural Record.

April, 1923

Office Building in Construction, Showing Placing of Columns, Which
Are Largest Monolithic Limestone Columns Ever Turned.

CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.



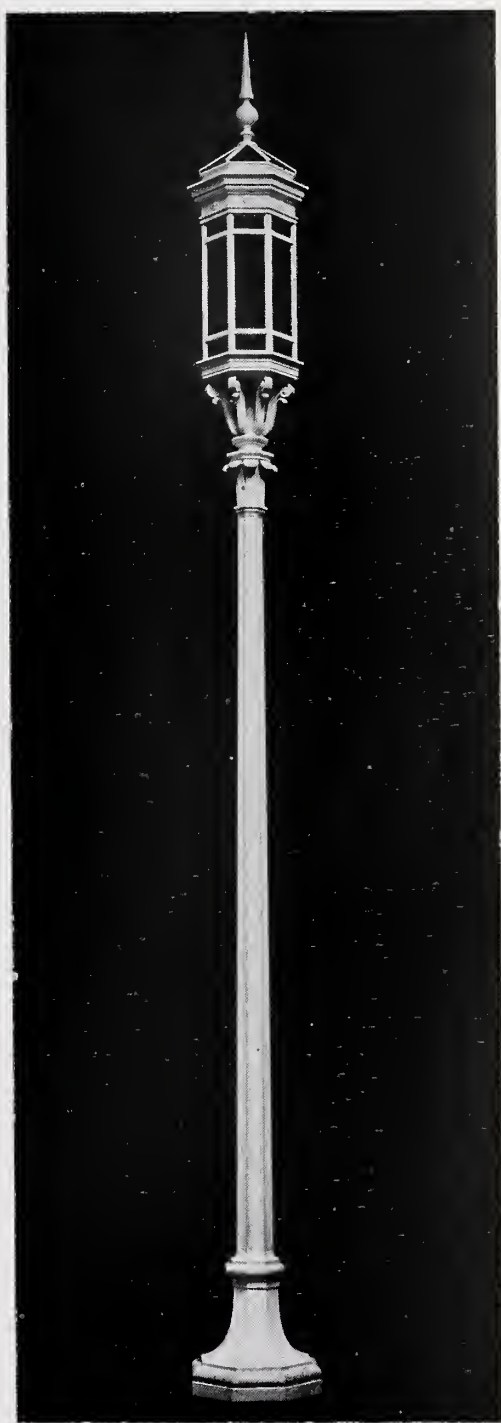
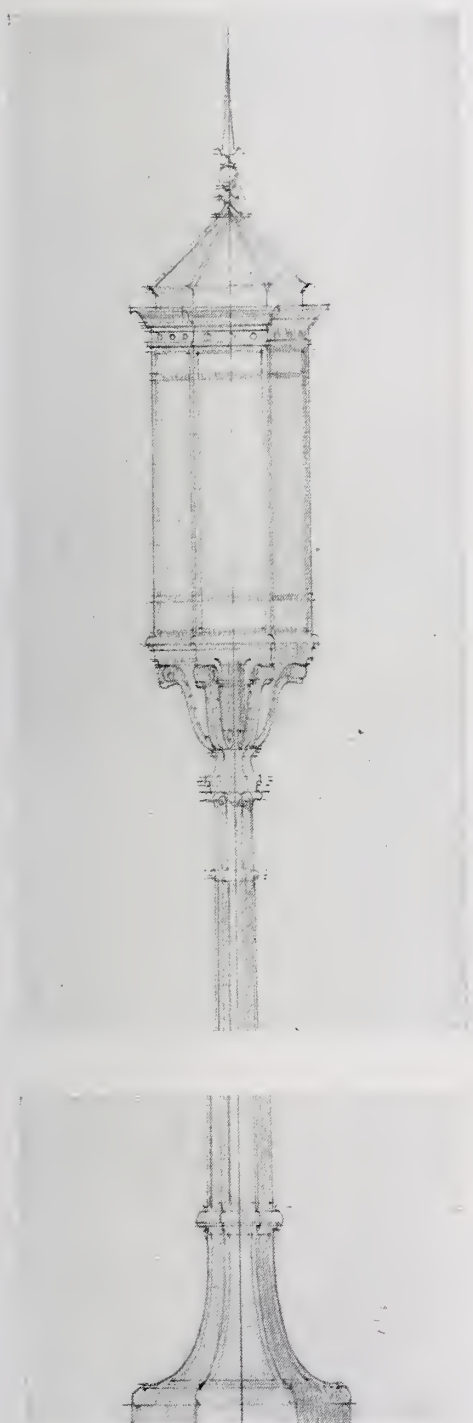
The First Office Building in Construction.
CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

There cannot but be a feeling of progress and accomplishment in seeing this first building of the new Capitol Park group rising in solid stone to proclaim the emergence of a great architectural vision into a tangible fact, a thing of substance. Vision is intangible, and no matter how clearly it is set forth there is ever an overwhelming majority that fails to see it, or, seeing it, to believe in it.

Without vision, certainly, and faith, it is not possible to carry out large architectural projects, and true architecture is an art which does its thinking in large terms. It creates a great design, sweeping away unsightly city areas, clearing a space in a wilderness of unbeautiful chaos to make a place on which the design may become an accomplished fact. And coupled with the vision, architecture follows close upon it with the practical means of executing it, for architecture is an exact art as well as a creative art.

Many a fair architectural project has never reached its final realization because the initial vision was lost to sight as years of inaction obscured the vision with a cloud of indifference. To see great architectural visions is the architect's gift. It is for this that he is an architect. If he can make his vision to be seen and shared by those who are the most intimately concerned in its realization, he does his community, and even his whole age, no small service. In a larger sense, even, than its relation to the people of the State of Pennsylvania, the full completion of such a group as is planned for it can be seen as adding to the civilization of the present age an enduring monument to beauty and order.

In the execution of an extensive project such as this, speedy completion is an obvious impossibility, and it is not so important to move rapidly upon it as it is to keep moving steadily and continuously.



The Architectural Record.

Pencil Study and Photograph of Model of Capitol Park Lamp Post.

CAPITOL PARK, HARRISBURG, PA.

Arnold W. Brunner, Architect.

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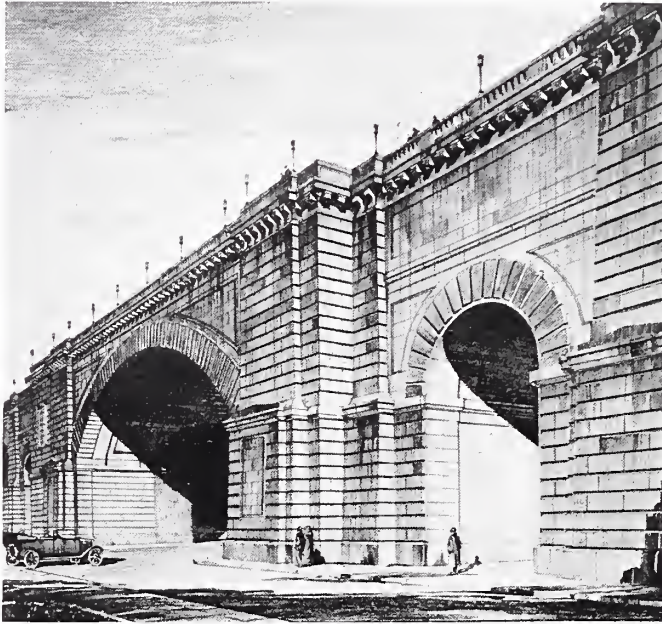
April, 1923

Large architectural enterprises which, for one reason or another, have stopped for a year, are very likely to stop for ten years, and even to fail entirely of ultimate completion.

In charge of the work of developing the Capitol Park is the Board of Public Grounds and Buildings of the State of Pennsylvania, consisting of Governor Gifford Pinchot, Auditor General Samuel

S. Lewis and Treasurer Charles Snyder.

To further the realization of the vision of Capitol Park is Pennsylvania's opportunity, for here is an architectural solution of a problem both esthetic and practical, and a solution which meets both phases and moulds them into a unit which is fundamentally sound in its planning, psychological in its appeal, and a thing of abiding beauty and dignity.



Project Drawing of the Soldiers' and Sailors' Memorial Bridge.

CAPITOL PARK, HARRISBURG, PA.
Arnold W. Brunner, Architect.

La Ranchère
Saint Nom-la-Bretèche
Seine-et-Oise
by

*Harold Donaldson Eberlein
& Leigh Hill French, Jr.*

LA RANCHÈRE, near the little village of Saint Nom-la-Bretèche, in the Department of Seine-et-Oise, is a house dating from the latter part of the reign of Louis XIII. Although a seigneurial mansion—it is said at one time to have belonged to a noble Postmaster General of France, under the *ancien régime*—the house is of modest size, as such houses went, its northern end lying along the highway that bounds the estate.

The west front faces a small gravelled forecourt, surrounded by trees, whence a short road leads off westward to the great gate between the stables and barns. To the east is a park encircling a broad *tapis vert*, while to the east and south of the park are flower and vegetable gardens and the poultry yards and rabbitry.

The house is of stone coated with brownish grey stucco, and both the west and east fronts are characterized by a broad, simple dignity, so simple that the aspect would be severe were it not for the thoroughly domestic atmosphere surrounding the whole establishment. The conservatory at the south end is, of course, a modern addition. The treatment of the chimneys is singularly agreeable and contributes not a little to the

poise of the composition. Inside, the arrangement of the house is direct and convenient and there is a very good early staircase of restrained design ascending all the way to the top floor. The paneling in the rooms is of excellent character but is of later date than the house and has evidently replaced the earlier woodwork at some period of renovation.

To the southwest of the house, and sunk behind a low wall, is the old formal parterre with its borders of bright-hued flowers. Directly to the west of this are the old barns and the houses of the gardeners and laborers. These buildings are rich in an unpretentious picturesque quality and constitute a very considerable item in the total charm of the estate. The texture of the red tile roofs is especially mellow and pleasing. These structures exhibit no architectural pretense but without conscious effort their builders achieved a most gratifying bit of composition. The walls, rough-plastered over rubble, are whitewashed.

La Ranchère is comfortable and adequate rather than imposing, and its suggestive appeal for modern adaptation will be felt by not a few to whom domesticity is of paramount importance.



The Architectural Record.

April, 1923

House Door.

LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.



The Architectural Record.

West Front.

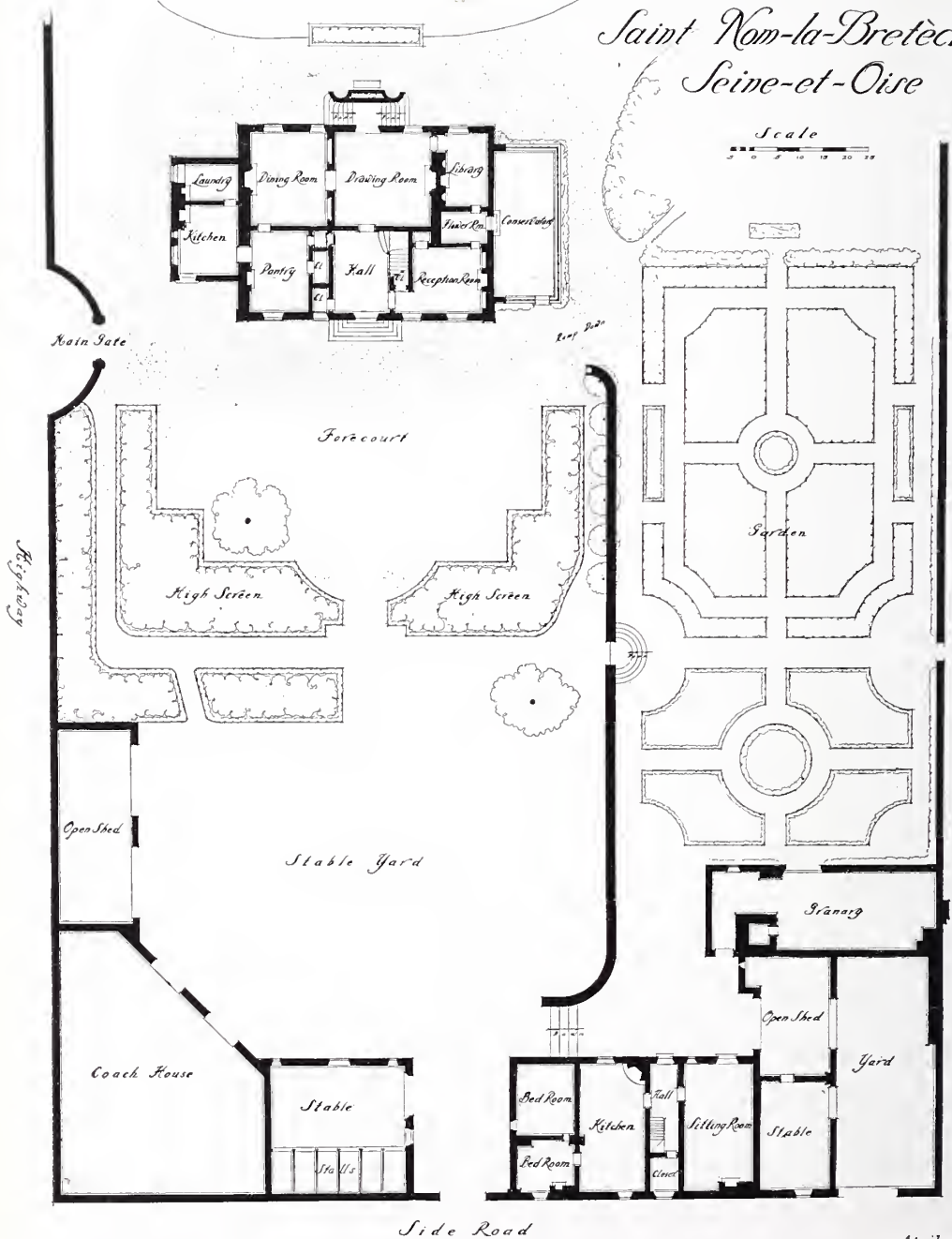
LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.

April, 1923

Park

*Saint Nom-la-Bretèche
Seine-et-Oise*

Scale
3 0 4 10 20 25



The Architectural Record.

Side Road

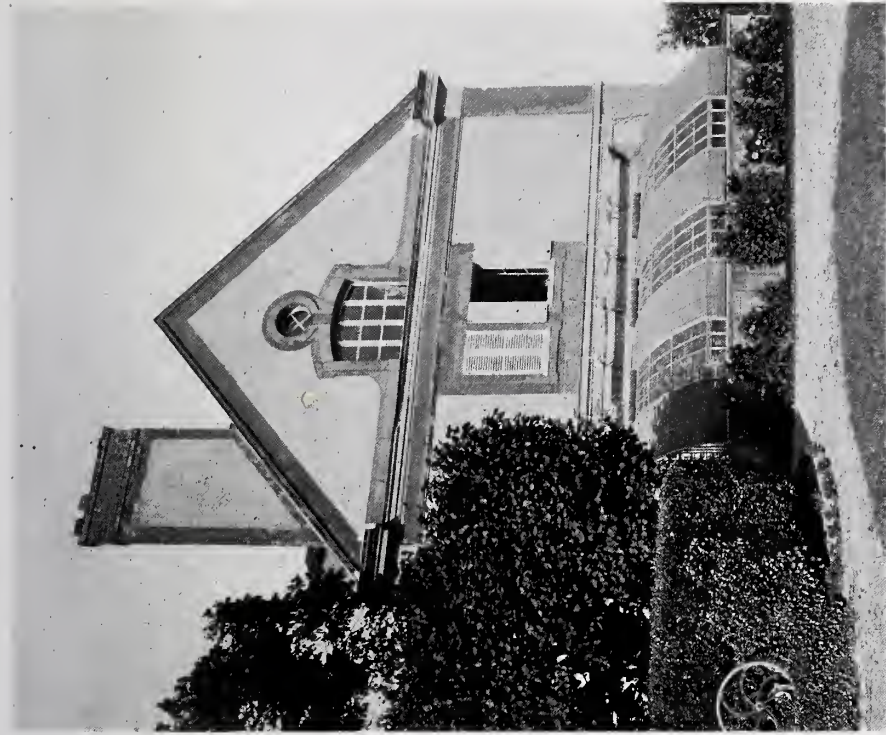
April, 1923



The Architectural Record.

East Front.

LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.



South End.

April, 1923



The Architectural Record.

April, 1923

Garden Door.

LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.

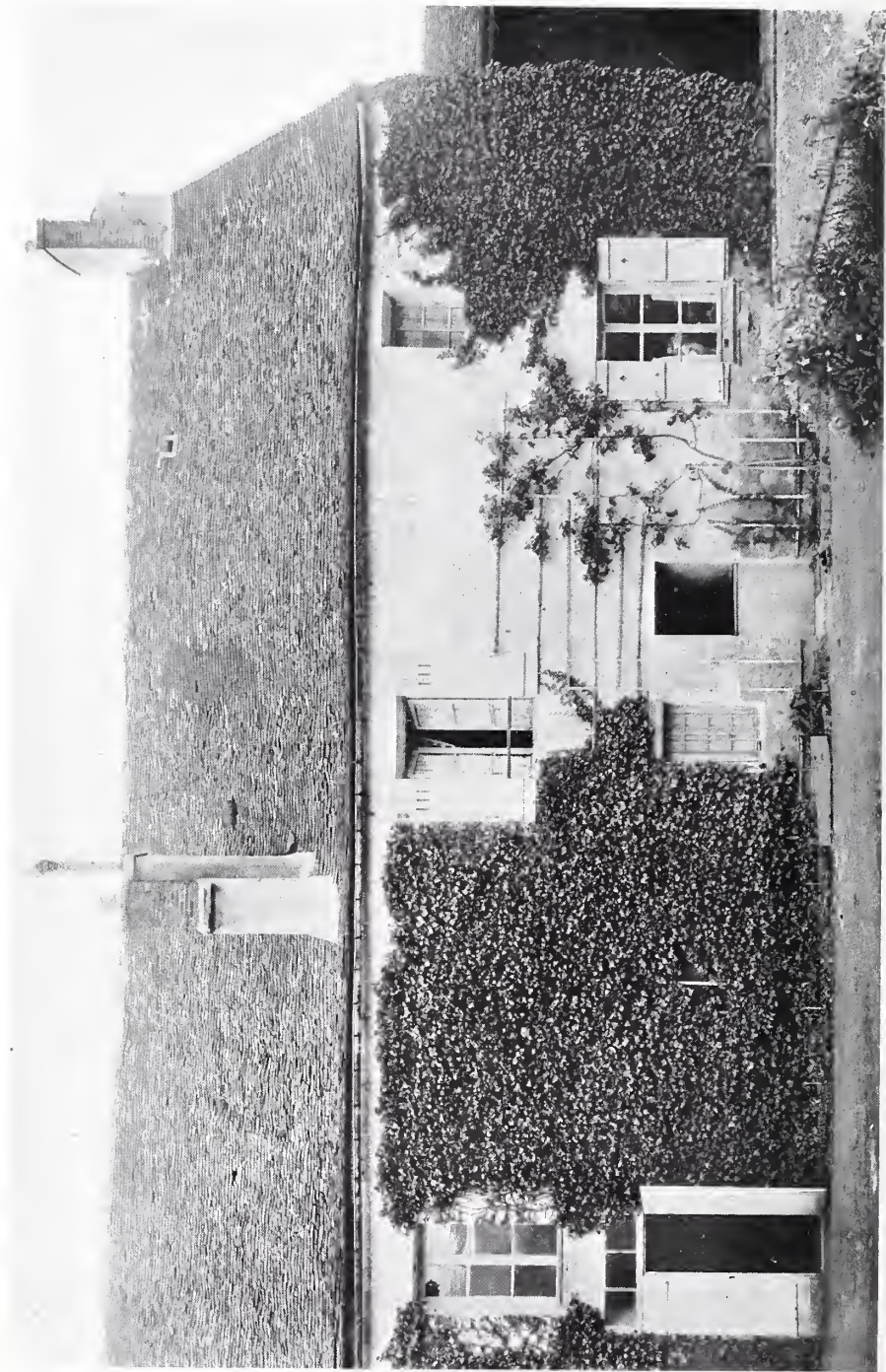


The Architectural Record.

April, 1923

Garden Front.

LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.

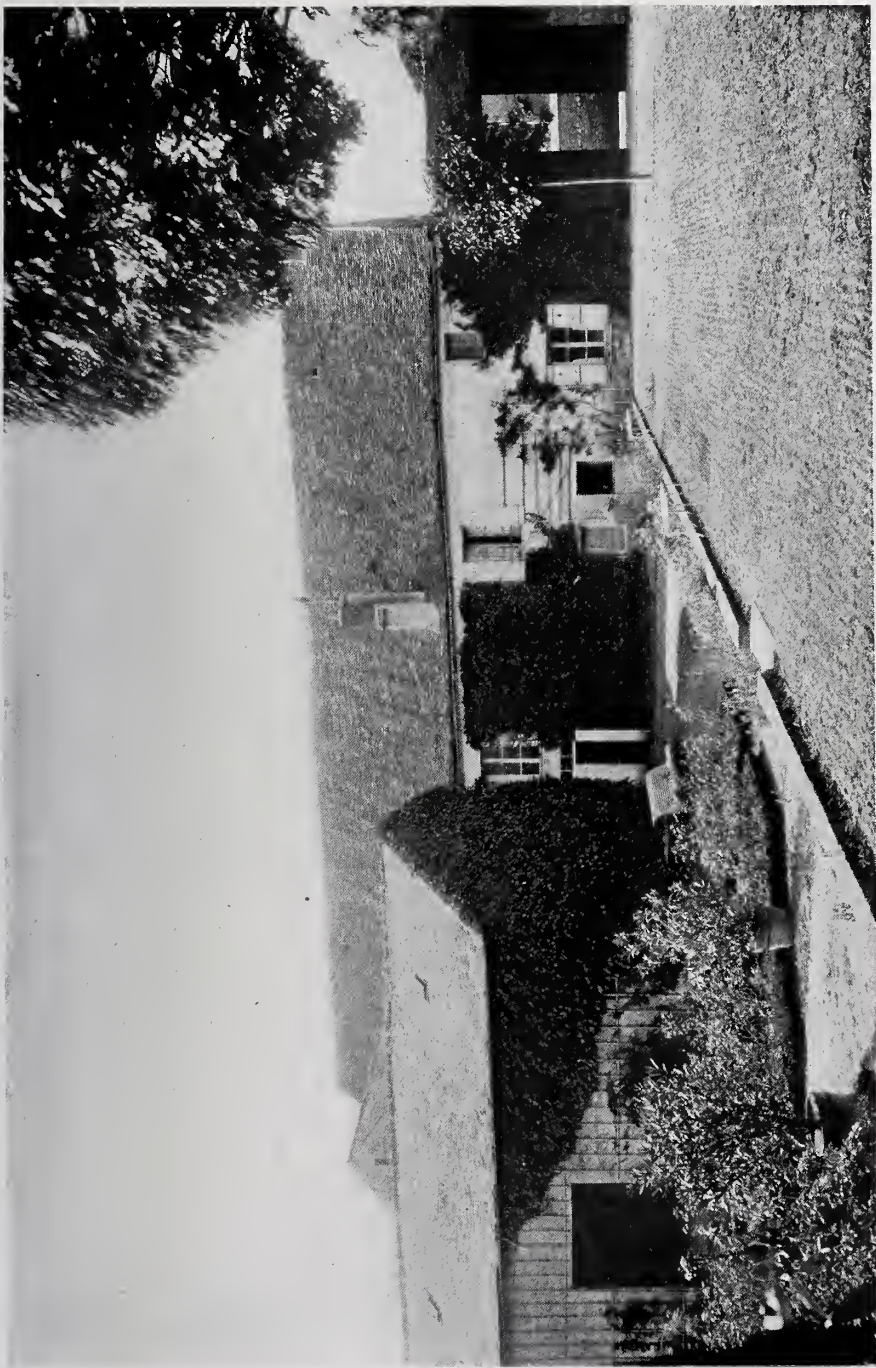


The Architectural Record.

Gardener's Quarters.

LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.

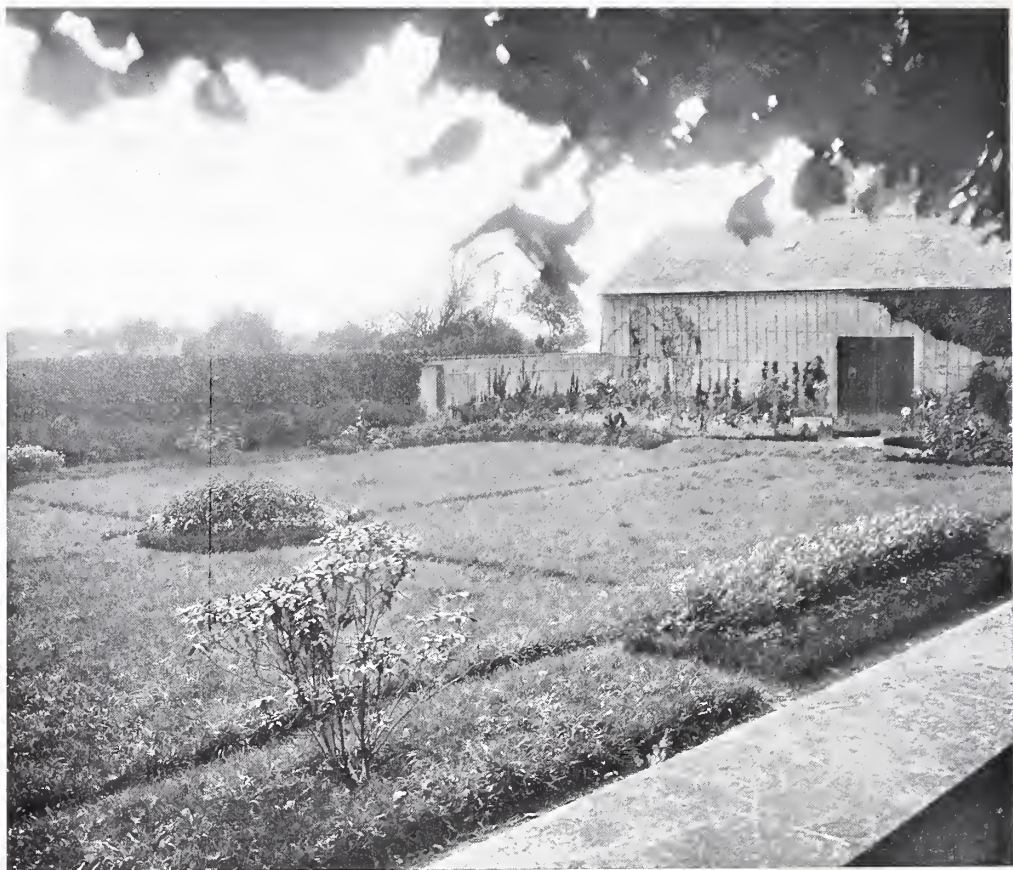
April, 1923



The Architectural Record.

Stables and Entrance Court.
LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.

April, 1923



The Architectural Record.

April, 1923

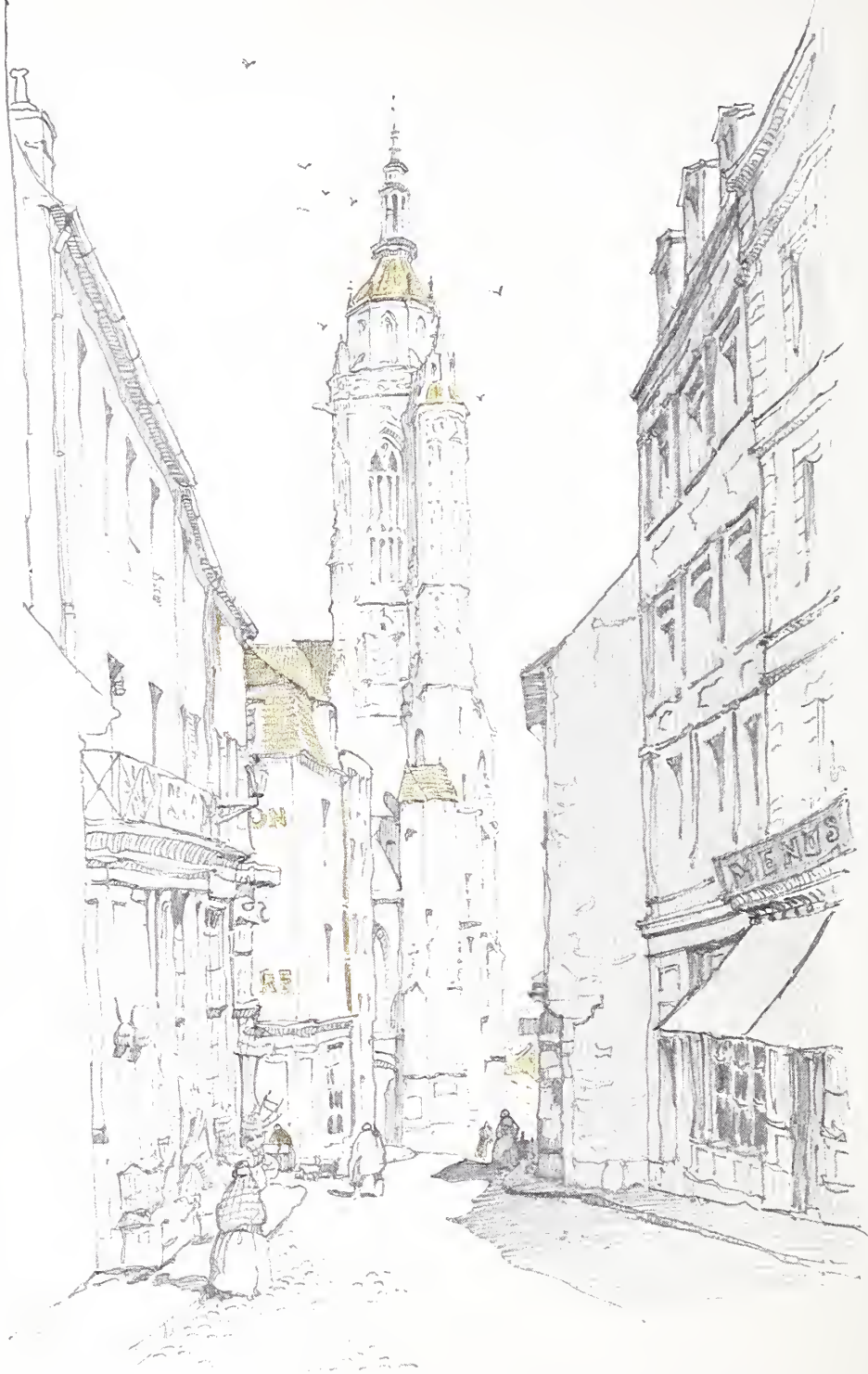
The Old Parterre.

LA RANCHERE, SAINT NOM-LA-BRETECHE, SEINE-ET-OISE.



SEGOVIA

IMAS



COUTANCES —
L'ÉGLISE SAINT-PIERRE

MAS



STRASBOURG

M.A.S.



AMIENS

MAS



AMIENS
ÉGLISE SAINT-LEU

MAS



DREUX
HÔTEL DE VILLE

MAS



BEAUVAIS -

MAS



JERZUAL
VALLEY OF THE RANCE.

MAS

GRAPHIC DESCRIPTION *in* ARCHITECTURE



*Text and Drawings
by Meade A. Spencer*

THE STORY IS TOLD of H. H. Richardson that he was one day asked to state what he considered the most important requisites an architect should possess for the attainment of success in his particular field. He replied that they were but three in number; first, to get the job; second, to get the job, and third, to get the job. Mr. Richardson was as successful a business man as he was an architect, and the truth of his statement is undoubtedly borne out even more today than it was in his own time. We can only regret that he did not go further and explain just how he himself proceeded to accomplish that all-important task.

However, regardless of the nature of the job or how it is obtained, the time is bound to arrive when sketches, first probably of plans and then exteriors in perspective form, are absolutely necessary. It may even be that the job is not yet cinched, let us say, and that the client wishes to see something of what he is going to receive before he signs the necessary and binding papers. Then the time is at hand which most architects dread, when it becomes imperative to explain by mechanical means the elusive dream which he fervently hopes will one day become a tangible reality. It is the time when opportunities are made or unmade.

Now, right here a peculiar situation arises of which it may be well to speak. Psychologists tell us that by far the majority of mankind are what are termed "visualists." That is, they receive and retain their principal impressions of what goes on around them through the medium of their vision, or to put it more clearly,

they grasp and remember most easily those things which they see. Few architects, surprisingly few indeed, are capable of sitting down and rapidly placing their ideas on paper in intelligible sketch form. In the majority of cases they must do this through some intermediary who acts as a sort of interpreter. Either there is someone in their employ—perhaps he does nothing else, if the office is large enough—who is capable of acting in this capacity, or they must go outside to what is termed a professional renderer. In either case the result is frequently unsatisfactory. Interpreters and go-betweens generally are, though the fault is not entirely theirs. The architect is again, as with the client, though admittedly to a lesser degree, faced with the necessity of forming a word picture of that intangible dream which floats before his mind's eye, and rarely, very rarely, is he successful. It requires two men of super-qualifications, one with the art of handling words and the power to endow them with peculiar meaning and vitality, and the other possessing an unusually sensitive and sympathetic understanding to receive them, combined with a sure and ready hand to record the impressions thus formed in a manner which shall convey unmistakably to the client the architect's idea and no more. Such combinations have been known to exist, but how infrequently is painfully evident from the number of architectural renderings which fail to thrill. They represent merely a mechanical layout of lights and shadows, combined with few or many tricks of the trade, momentarily perhaps intriguing the eye but expressing nothing to the inner consciousness.



The Architectural Record.

Rendering by Meade A. Spencer.

April, 1923

As individuals differ, so must ideas. How much more satisfactory it would be were every architect able to express himself rapidly, clearly, and simply by a few well-directed lines from the end of his pencil! How much more charm, spontaneous beauty and real feeling there would then be in his designs, for they would come direct from the heart and clearly indicate what words can never express, and would not bear the often cold and mechanical aspect which they are frequently compelled to betray in taking visual form through the medium of someone who has neither the sympathy nor understanding of their creator. The proper character of a building or other structure, once caught in the beginning, may frequently be carried subconsciously through all the mechanical side of construction to the completed work. When this is so, it invariably strikes a responding chord deep down within the heart of every beholder and becomes a thing of beauty and a joy forever.

An architect need not be able to draw to become what Mr. Schwab would term a success—that is, a financial success. But even in this country there are some men to whom success does not mean only the accumulation of a fortune. As an artist, Rembrandt ranks with the greatest. Financially, he was an utter failure. The wheel of public appreciation revolves and brings its day of recognition and its nights of oblivion to other beings, but for Rembrandt it seems to be high noon forever. Yet how many Rembrandts have there been in the architectural world? True, we build, tear down, and build again. There are styles in architecture as there are in dress, but there are few buildings which survive, even in memory, after a brief period of years. It is interesting to note that those architects who stand on the pinnacle of their profession, whose works have widest repute, and whose buildings are prominent as landmarks in a flood of mediocrity, are artists in every sense of the word. They can all handle their pen, pencil, charcoal, or water-color with the same facility they employ in handling the materials with

which they build. To be able to render or sketch well is to be able to record one's own ideas for the benefit of others, not as regards form and substance alone, but with that indefinable touch which makes them at once more pleasing and understandable.

When an architect undertakes, then, to make a rendering and to record for a client those mental impressions to which he is striving to give at least conventional form, he is confronted, or should be, with the problem of deciding which of two courses he shall pursue. Shall he render the general impression of mass and form, subordinating and sacrificing detail, relying upon broad, simple qualities, and especially attempting to create atmosphere, or shall he give an accurate, detailed, even minute account of every minor form which goes to make up the body of the structure which he has in mind? The one is the impressionist's method, the other the detailist's, and the latter is the more apt to be chosen in that it is the easier and more understandable to the architect.

But one must not forget that it is the client or the public for whom this picture is intended. It is to provide anyone with an impression of what to expect in the completed structure. In that case is it necessary to delineate, every cornice bracket, every window frame, every delicate piece of ornament? The cry has been in the past that an architectural rendering may not be a work of art in itself, that it may not aim at the creation of that which we term atmosphere, that it must remain like the scale drawings from which it was made, merely a means to an end, that should it go further it must at once give a false impression and, so to speak, trick client and public alike into expecting something which may never come into being. Happily that idea is fast disappearing. It is difficult, in making a rendering, to visualize, even with the actual surroundings before one, just what the final aspect of the completed structure will be. Even inanimate things like buildings react strangely upon their surroundings, and the reverse condition is similarly true. It is obvious,

then, that the client will not receive the proper impression of a structure, if nothing but a cut and dried parcel of facts is placed before him. In nature, facts frequently become pleasantly blurred. Far down the side of a building in bright sunlight window jambs fade and merge into surrounding wall, a hard cornice line

architectural rendering and sketching is consequently taking a rapid turn for the better in that it is losing much of its stiff formality and lack of life and interest. It might even be a good thing if architects were to lean completely in their rendering toward the impressionist's attitude, for try though they may,



Rendering by Meade A. Spencer.

here and there vanishes in a pile of distant clouds, and then reappears further down; a plume of steam from some neighboring building floats lazily across the picture and obscures for an instant some part of it, or, perhaps, a chance cloud casts a momentary shadow over one corner. These and countless other seemingly small things modify to a tremendous extent the visual impressions which we gain of our surroundings.

Architects are fast realizing this, and

they are never likely to err on the side of omission and be too neglectful of detail. Only too often do they lose themselves in its contemplation.

Present day designs are not seldom the victims of over-zealousness in this respect, and a dry and academic formality the result. Bold, vigorous contours are the earmarks of the primitive, and today we pride ourselves on our refinement. Yet there do occur periods in every great art when the presence of superfluous and

redundant detail drives many artists to return to the primitive in order to express the all-important basic truths of life without that loss of power to which a confusion of detail inevitably leads.

But, aside from its practical advantage, the ability to sketch quickly and well, to be able to record those visual impressions which one gains of the things about him, in a form which will make them equally clear and understandable to others, is a joy supreme. There is no pleasure for the artist comparable to an outdoor sketching trip. It is the render's relaxation and amusement. It is his surest step toward self-betterment and an inexhaustible source of inspiration. Many find great happiness in travel, but to travel with a sketch book is to travel with the gods. You wander care-free down some rambling old street or byway, where the houses jostle and shoulder each other about in an effort to crowd themselves as far as possible out on to the sidewalk, or where aged and decrepit structures spread their hoary old timbers above you and lean picturesquely toward each other. Suddenly, coming upon a cluster of such ancients where one more obtrusive than his neighbors has completely shouldered them into the background and taken his stand so that the street perforce must bend around him, you seat yourself, rest your sketch book on your knees, sharpen your pencil, or, prepare your color box, if that be your medium—and the stage is set.

Or, perhaps, you chance to find yourself amid the ruins of the temples and dwellings of a once powerful people, where that glory that was at the same time the pride and envy of the ancient world still rears itself in broken but unsurpassed fragments, a fit subject for the world's wonder and homage, and you follow with reverent pencil the details of shaft and capital and cornice. You settle yourself in the corner of a portico, your back comfortably propped against a slab of marble which may have similarly supported the back of some Ictinus or Callicrates two thousand years and more ago, while off in front of you the blazing sun makes alternate patches of glisten-

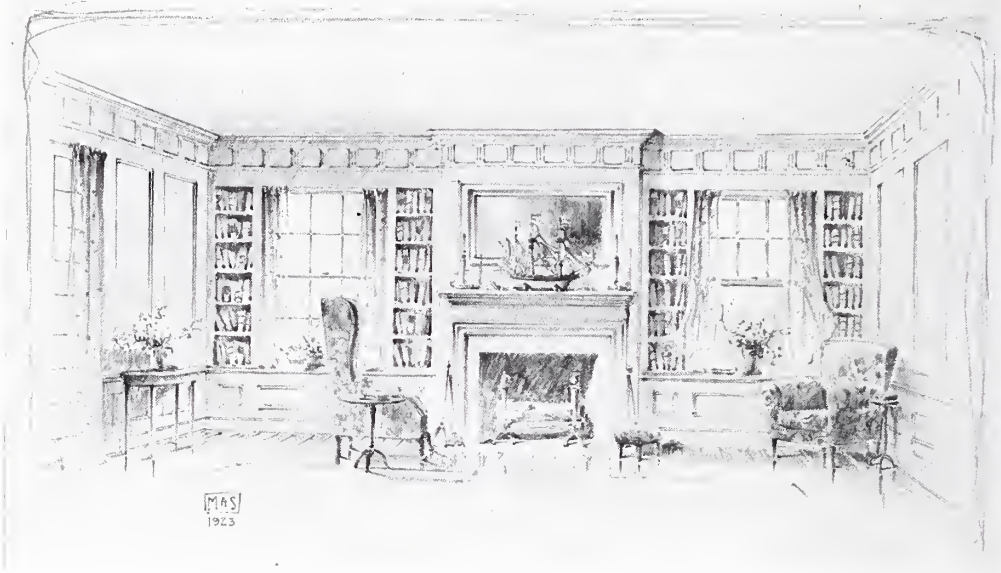
ing light and transparent shadow among decaying fragments, and the stumps of columns and tumble-down walls, beautifully touched with an age-old patina, drip pure gold. You examine it all with a critical eye, your pencil poised to strike when once you feel you have grasped the essentials and have selected your center of interest. Then, suddenly, you begin, cautiously and a bit timidly at first, then increasingly bold and rapid, an enthusiasm taking possession of you, until you cannot move your pencil fast enough. Soon it all begins to take shape, the various fragments assume definite form and relation. What at first seemed hopeless starts a tingling in your veins as you realize you have struck that note which, somehow or other, appealed to you as you first selected your subject. You sketch for what seems an age, and when you have finished, you look at your watch and find you have been working scarcely an hour. There is plenty of time yet for another attempt. And so it goes. Next day comes the reaction, when in the cold light of criticism, untouched by any attendant emotions, you realize how crude and mean your scribbles are and how poorly you have interpreted that glorious architecture, the vision of which remains in your mind and heart. But the thrill it gave you, the things it taught you, as you caressed with eager pencil every detail of its loveliness, will linger forever.

Or let us roam among the cathedral towns and their surrounding villages northern Europe and gaze upon those matchless towers and pinnacles of a by-gone age. The ordinary traveler wanders aimlessly about, seeing and hearing much, remembering this and forgetting that, viewing superficially somewhat of everything, or little of anything, but the sketcher makes all with which he comes into contact his very own. If he is an architect and couples with his active pencil a seeing eye and a retentive memory, he will find, upon returning home to practice, that he has acquired a source of inspiration that he could never attain by other means.

Just as in office rendering, in pure sketching the architect is faced at the be-

ginning with two points of view. He may either labor carefully over his picture, making it as nearly photographic as is deemed advisable in the depiction of reflected lights and shadows, the bringing out of highlights, texture, detail, and so forth, or he may satisfy himself with mere outlines, shadows, and the barest necessities, rendering the general mass only and relying upon memory or an accompanying photograph for textures and

materials and their varied uses frequently give a distinct character and must, at least to a certain extent, be expressed. Proportions must be as nearly exact as possible and varying colors given their proper values. It will be seen, then, that the command of two, or even more, techniques, especially in handling pencil work, is of great advantage to one who plans to do both outdoor sketching and office renderings, the one adapted for



Rendering by Meade A. Spencer.

the like. Such decisions must rest upon individual preference or ability. The writer prefers the latter method as undoubtedly the more rapid, and speed in the present day and age seems to be almost a necessity. There is so much to see and record and so little time in which to do it. In office rendering, however, where time is not such an important factor, when a rendering started one day may be finished the next, and where textures and the like sometimes play an indispensable part, a different point of view must of necessity be assumed. It is well not to go too far into detail even here and kill that all-important general impression which one is striving to get, but in the construction of a building, mate-

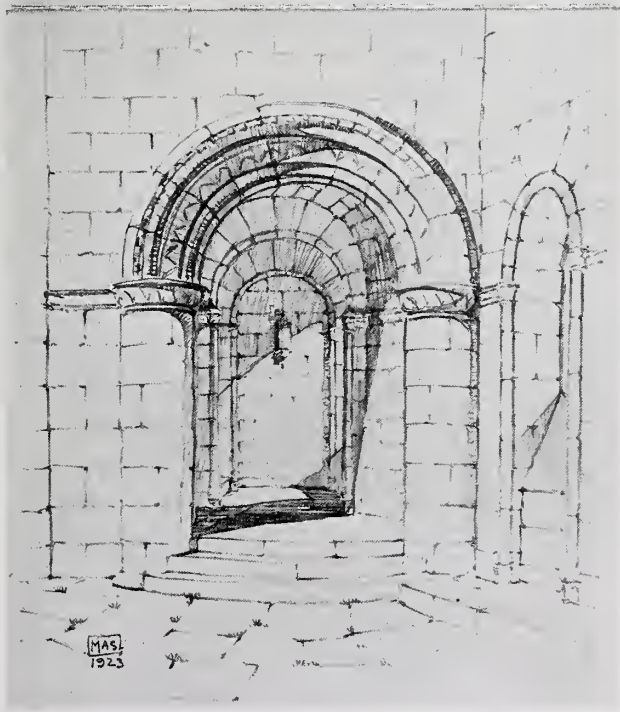
speed, the other for more or less careful picturization, where the retention of certain predominant characteristics is essential.

Up to this point little has been said of mediums, little distinction has been made between them. It makes no difference. We have not been concerned here with ways and means, but rather with cause and effect. The sketches which accompany this article all happen to be in pencil, with a few touches of colored crayon, merely because it seems to be the medium best suited to an architect's uses, and because it is the first which he learns to handle, in addition to being the handiest and most rapid for sketch book use. Not so direct as the pen or etching needle, or

silver point, it is adaptable to work involving board freedom or the most delicate restraint, yet is at the same time an excellent training for hand and eye in precision of observation. In that way it might well be used to a greater extent in present day architectural schools than it is, for as outline is the basis of all art, so should line drawing be thoroughly taught at the beginning. A study of the old masters in this respect is of invaluable assistance and inspiration. The drawings made as preliminary studies to their paintings by men like Leonardo da Vinci, Botticelli, Michelangelo and others are masterpieces of line drawing, and frequently hold a charm not to be found in their completed works. Ingres, always a great draughtsman, was particularly fond of the pencil, and the delicacy and refinement of his line will repay many patient hours of study. It is also

well to note here, as an interesting fact, derived from the contemplation of this artist's work in particular, that it is not necessary to go deeply into the rendition of textures to express much. Brevity may be the soul of art as well as of wit.

And now, in conclusion, there is no more important thing to bear in mind in architectural rendering and sketching than the value of restraint. Nothing seems more difficult to remember at the proper time or so seemingly impossible to put into effect, even if we do remember, than that. To be able to stop at the right time, or to know that the moment has arrived when one little dab here or a touch there will carry the whole effect across the boundary line from perfection to imperfection, is to betray that vital characteristic which marks the difference between artist and scribbler.



Rendering by Meade A. Spencer.



The Architectural Record.

April, 1923

Garden Pool, North Bridge and Elevator Housings.

IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.

CONCERNING THE IMPERIAL HOTEL. - TOKYO, JAPAN -



By Louis H Sullivan

ON THE VAST stage of the world drama, two ideas, both of them immense in power, confront each other in spectacular appeal to the fears and the courage of mankind.

And it is precisely this condition that gives animus and validity to what is to follow in contemplation of the Imperial Hotel, of Tokyo, Japan, as a high act of courage—an utterance of man's free spirit, a personal message to every soul that falters, and to every heart that hopes.

It is becoming clear that a new thought is arising in the world which is destined to displace the old thought.

The new thought partakes of the nature of that freedom of which men long have dreamed. It is now breaking through the crust of the old thought which thus far in history has dominated the world of men and which embodies the idea of dominion and of submissive acquiescence.

The old idea, or fetish, is dying because it no longer satisfies the expansion of thought and feeling of which the impressive revelations of modern science are a primary factor; and especially because it is no longer at one with those instincts we call human; it does not recognize the heart as a motive power.

Yet is the old idea tenaciously fixed in the minds of a majority of those engaged in commerce, the industries, the law, the courts of justice, and especially among parasites of all kinds and degrees.

The old idea reaches from top to bottom of the social strata, and also from bottom to top. It is an age-old fixed idea, based upon a concept of self preservation, which once may have had an outward semblance of validity even

though its stability of superstructure rested upon a foundation of human slavery, ignorance and suppression.

While in modern times bodily slavery as such has been done away with in theory, the old idea has persisted, curiously transformed into a slavery of the mind, which also ranges through all the social strata, even as men appear to be bodily free.

This new slavery of mind is manifest in a strange, ever-present disturbing fear, anxiety, and incertitude, which permeates society and which leads the individual to cling for safety to the old ideas, superstitions, and taboos, in order that he may conform and not appear too obvious as an individual, a target; that he may, above all, escape the fashionable epithets, "crank," "visionary," "dreamer," "freak." Hence comes about a new economic slavery causing the man, high or low, to fear for his job, and live in a nightmare so terrifying that he dare not say one word that might be construed as disturbing. Such minds in their nature are asleep to the significance of great world movements in thought.

But the idea of freedom is also old; older indeed than the slave-idea. For it is of the nature of any organism that it wishes to be free to grow and expand. This instinctive desire for freedom has been held in check and dominated by the intellectual idea of fear, resulting in unnumbered inhibitions and suppressions, which have led to an obscuration in the minds of men of the two ideas of slavery and freedom.

But the idea of freedom *also* is beginning to permeate the thoughts of men, with a new urge, *also* through all the strata of society, and is massively defining, taking form, and becoming

energized, through an ever-growing knowledge and ever-increasing understanding of the true nature, the true status of man not as creature but creator; an enlarging view of man's inherent powers and a growing consciousness that his slavery has been self-imposed.

It was in this sense that I have had occasion recently to comment upon the splendid interpretation of the spirit of the American people manifest in the design submitted in the competition for the *Tribune Building* in Chicago—by a Finlander—Eliel Saarinen.

It is in this sense that we are now about to contemplate the new Imperial Hotel in Tokyo, Japan.

This great work is the masterpiece of Frank Lloyd Wright, a great free spirit, whose fame as a master of ideas is an accomplished world-wide fact.

Through prior visits he had discerned, and added to the wealth of his own rich nature, the spirit, as evidenced in forms, of the ideals of Old Japan, which still persist, in slumber, among its living people, needing but the awakening touch.

It is a high faculty of what we call genius to penetrate and temporarily to reside within the genius of another people foreign to our own local ways. And it is this quality of vision, this receptivity, this openness of mind, that especially signalizes the free spirit—the mind free from provincialism and the fear of life.

Next in order to the power of vision comes the power to interpret in thought; and, next to this, the power to express the thought, the state of feeling, in concrete terms.

In this structure is not to be found a single form distinctly Japanese; nor that of any other country; yet in its own individual form, its mass, and subsidiaries, its evolution of plan and development of thesis; in its sedulous care for niceties of administration, and for the human sense of joy, it has expressed, in inspiring form as an epic poem, addressed to the Japanese people, their inmost thought. It is characterized by the

quality, *Shibui*, a Japanese word signifying the reward of earnest contemplation.

In studying the concrete expression, the embodiment of idea in solid form, the magnitude of this structure should always be borne in mind. It is 300 x 500 feet on the ground, the area thus equaling 150,000 square feet, or nearly two and one-half times the area covered by the great Auditorium Building in Chicago. The structure is three stories high in the main, with special masses equivalent in height to seven stories.

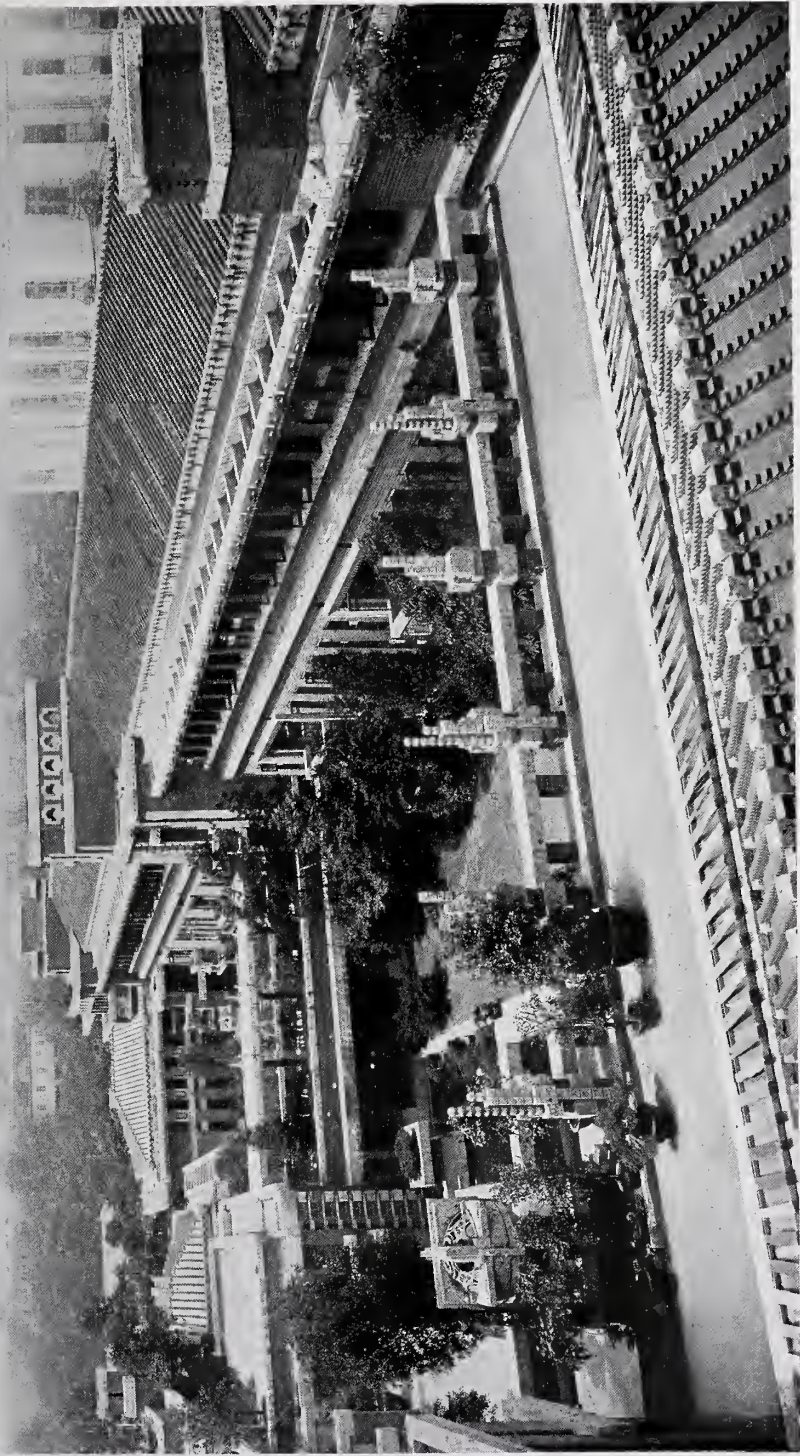
In a sense it is a huge association of structures, a gathering of the clans, so to speak; it is a seeming aggregate of buildings shielding beauteous gardens, sequestered among them. Yet there hovers over all, and as an atmosphere everywhere, a sense of primal power in singleness of purpose; a convincing quiet that bespeaks a master hand, guiding and governing.

Upon further analysis, aided by reference to the floor plans, it is disclosed that the structure is not a group, but a single mass; spontaneously subdividing into subsidiary forms in groups or single, as the main function itself flows into varied phases, each seeking expression in appropriate correlated forms, each and all bearing evidence of one controlling mind, of one hand moulding materials like a master craftsman.

It is this coming to grips with realities that infiltrates the mind of the observer, until he feels the reward of earnest contemplation in the sense that what at first he had regarded as a material structure is sending forth to him an emanation of beauty, the presence of a living thing, a wondrous contribution to the architecture of the world, an exposition of the virile thought of modern man.

So much for the ever-growing fascination of external forms, which appear as eloquent expressions of a something that must reside within them and justify them, upon logical grounds, as forms developed from functions of utility.

In considerations both of analysis and synthesis, one must regard the plan as the mainspring of the works; and this



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The Architectural Record.

Roof of Pergola, looking into garden courts.
IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.

plan in turn as but the organization of the primal purposes of utility, manifold in their nature, of service to be rendered.

Now, in examining the plans at the various floor levels, one discovers that the big idea of service divides into two specialized forms: the first constituting as a complex group a hotel complete in all details for the comfort and entertainment of the traveling public, or residence; the second, more formal and sumptuous part, is discernible as a group embodiment of the necessity for a clearing-house not only for the social obligations incurred by Japanese official life in its contacts with representatives of other lands, but also for the great social functions now inevitable in the high life of the Capital.

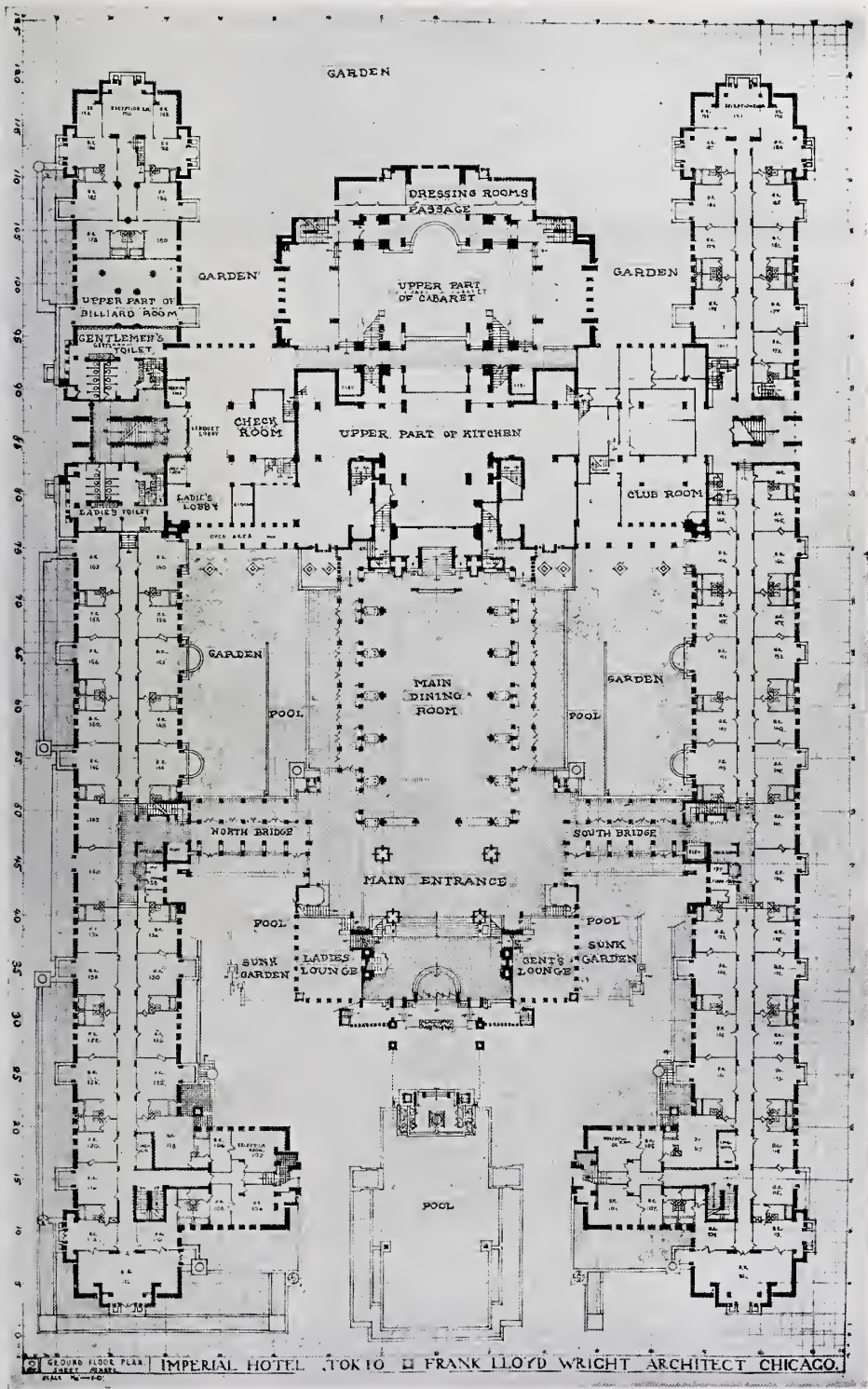
Consequent upon the relation of these two groups there exists a most felicitous system of interpenetrations, and communications, with a circulatory system, all worked out in a manner signifying not only mental grasp but creative imagination, based on the human being as a unit and a motive.

The dispositions throughout the entire building are so dexterously interwoven that the structure as a whole becomes a humanized fabric, in any part of which one feels the all-pervading sense of continuity, and of intimate relationships near and far. In this especial sense the structure, carrying the thought, is unique among hotel buildings throughout the world. Japan is to be felicitated that its superior judgment in the selection of an architect of masterly qualifications, of such nature as to welcome new problems of time and place, has been justified. The longer the contemplation of this work is continued, the more intense becomes the conviction that this Master of Ideas has not only performed a service of distinction, but, far and above this, has presented to the people of Japan, as a free-will offering, a great gift which shall endure for all generations to come as a world exemplar, most beautiful and inspiring, of which Japan may well be proud among the nations as treasuring it in sole possession.

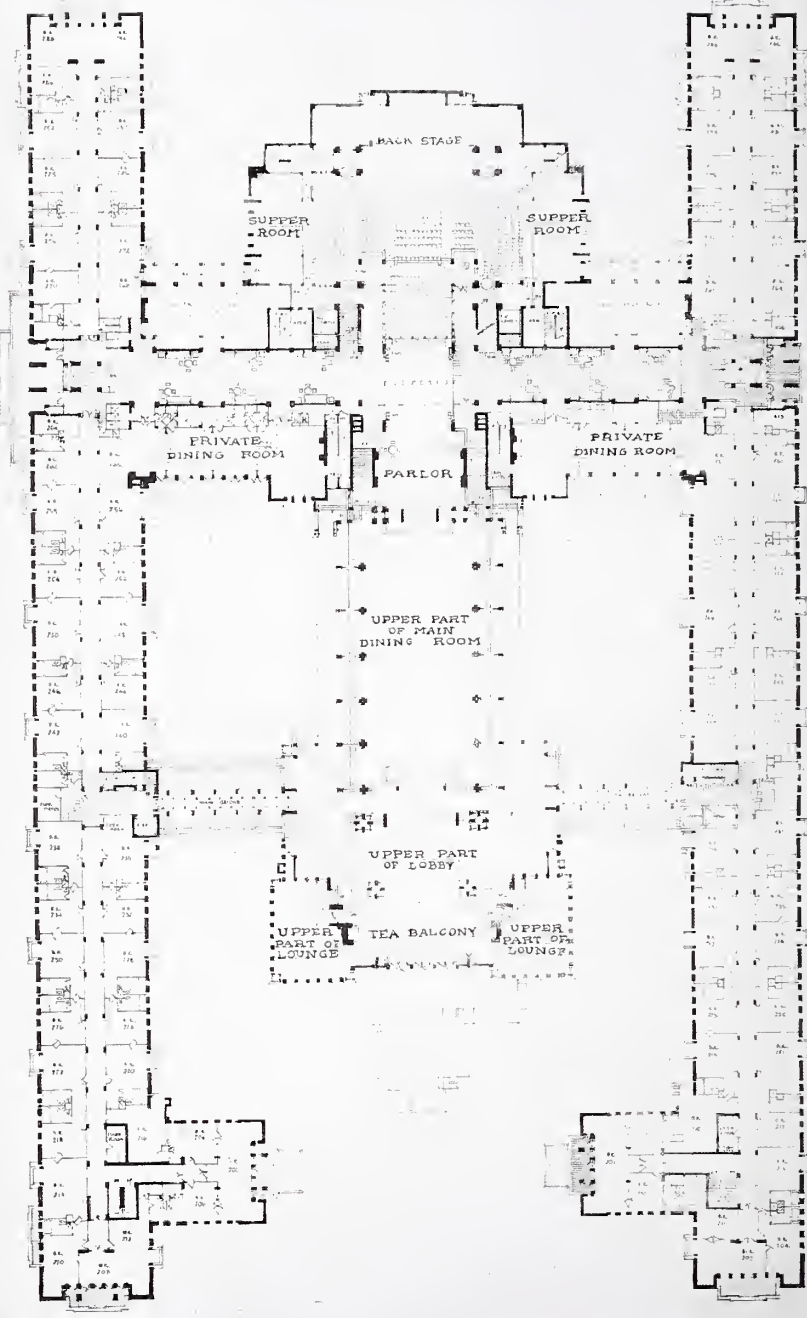
In further study of the plans, in their aspect of economics, one should carefully note the differences of levels, shown thereon but more clearly set forth in the longitudinal section. These differences of level are, in one aspect, a part of the charm of the work considered from the human point of view, and, technically, as a skillful method of deployment. They favor also the interpenetrations and the easy accessibility of the larger units and, thus, the compactness of arrangement and economy of space. A notable feature in this regard is the location of a single great kitchen, centrally placed in such wise as to serve the cabaret directly, the main restaurant directly, the private dining rooms by stairways and capacious electric service elevators, and likewise the banquet hall and ballroom above.

Beneath the banquet hall is a theatre seating 1,000, and at the level of the main floor of the theatre the entire structure is traversed and in a manner bisected by a grand promenade twenty feet in width and 300 feet in length. This promenade brings the two long wings of guest rooms in touch with the central group and acts as a foyer from which are entered the theatre, four groups of private dining rooms, and opposite the theatre a large parlor, the projecting balcony of which overlooks the restaurant. The floor of the promenade is sixteen feet above sidewalk level. Beneath the promenade at the north end is situate the formal social entrance with attendant service rooms and hallway leading to passenger elevators. Spaciously around the intersection point of the axis of the promenade with the central axis of the grand-plan are grouped stairways, passenger elevators, service elevators, service stairs, and other utilities. Within this group the service element is logically vertical. Elsewhere the circulation is mainly in the horizontal sense, as there are but three tiers of guest rooms.

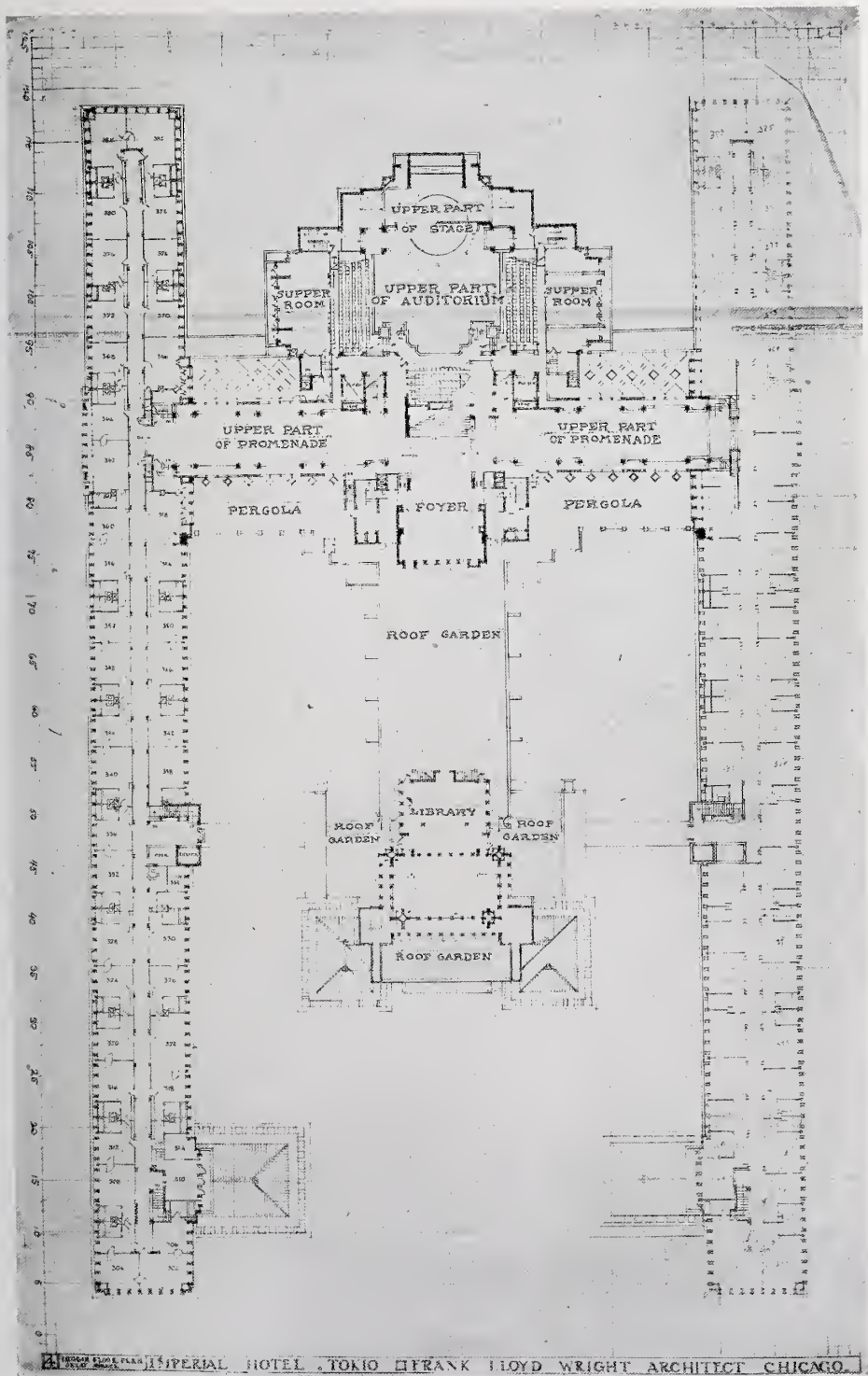
The two great wings, each 500 feet in length, contain the guest rooms, 285 in number, to be hereinafter described. These two huge parallel masses act as



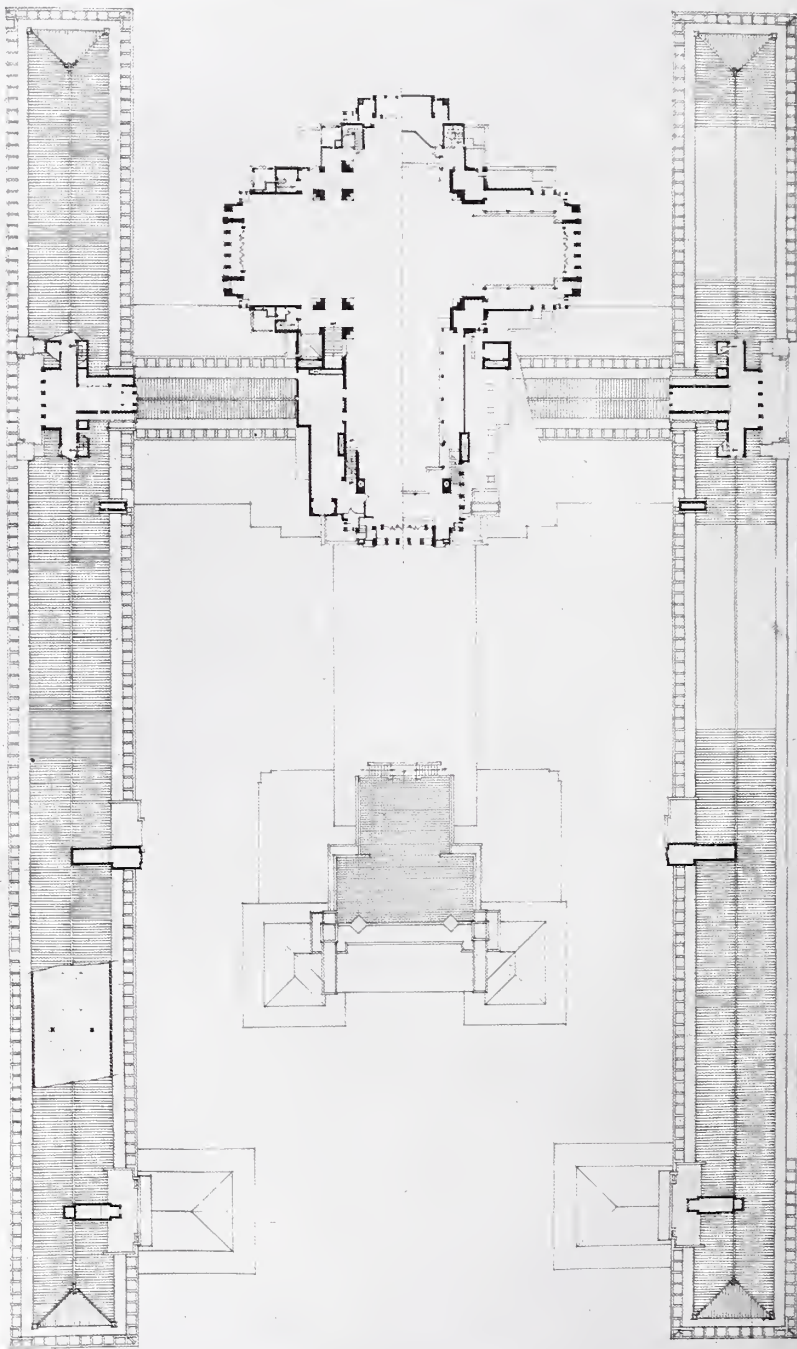
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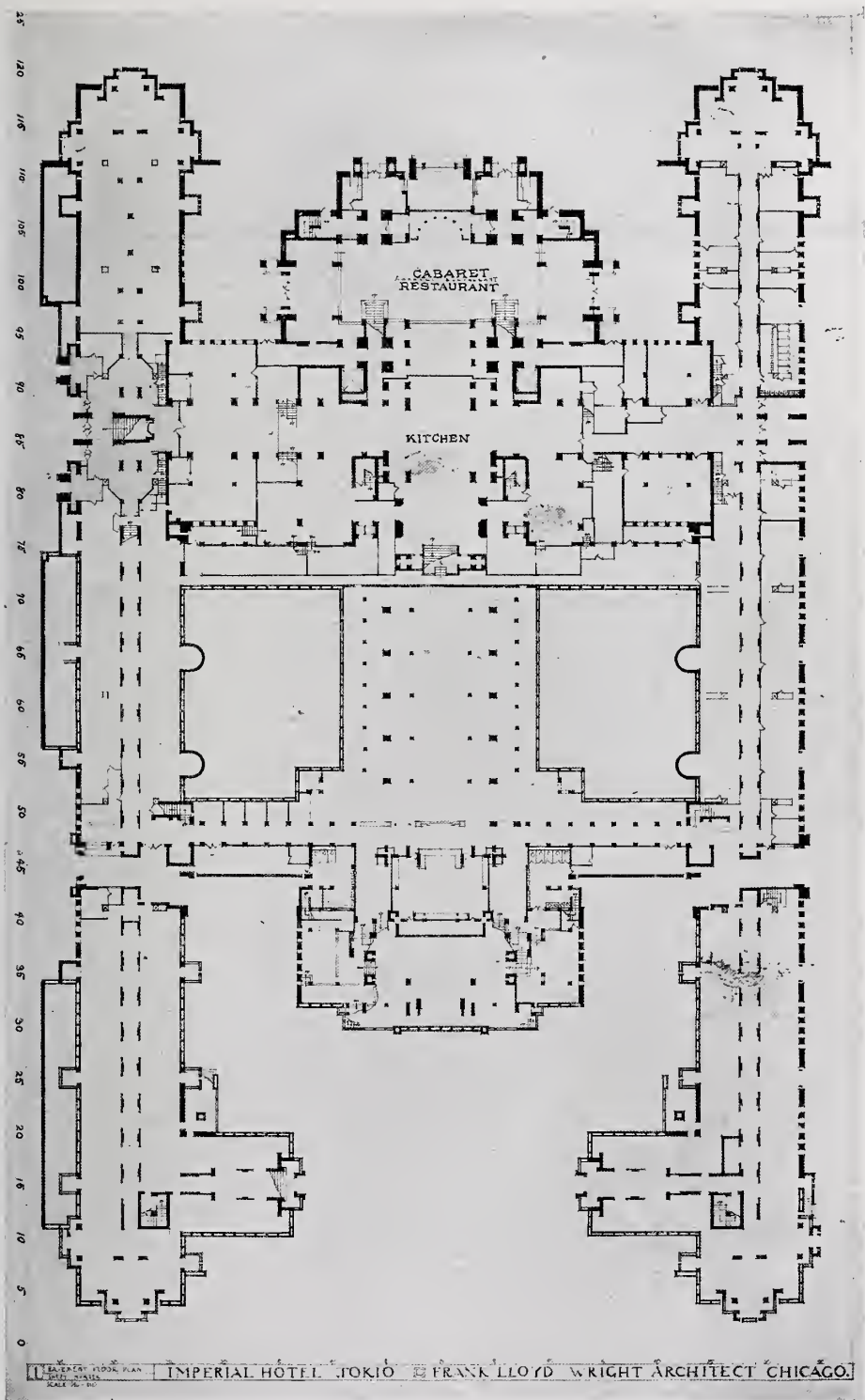
IMPERIAL HOTEL, TOKYO. FRANK LLOYD WRIGHT, ARCHITECT, CHICAGO.



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GRAND HOTEL BALL PLAN IMPERIAL HOTEL, TOKYO FRANK LLOYD WRIGHT ARCHITECT CHICAGO.



guardians of the inner courts, the gardens, and the more open structural effects, protecting them against the heavy prevailing winds and insuring a large measure of quiet, a sense of retirement and relief from a busy and noisy world without.

There remains to be considered an introductory group, placed within the open space bounded by the main guest wings and the formal social group, and lying symmetrically along the main axis of the grand-plan. It is connected to the wings by means of open bridges over terraces, leading to elevators and stairways. This group constitutes the welcoming feature of a grandiose and most hospitable plan—a plan based upon a rare sense of human nature, everywhere discernible throughout the structure.

At the western, or initial, beginning of the grand-plan, the parallel wings throw out minor wings of an enfolding character. Between these two wings lies a large formal pool, on each side of which are the driveways for automobiles. For *jimrikishas* separate entrances and runs are provided through the main wings. The entrance feature of the central group stands well back from the pool. One ascends a few steps and enters a spacious vestibule, from which lead up and down special stairways. A broad flight carries one to the main lobby from which one may enter the lounges, the side wings, or directly ahead, the main restaurant. At higher levels the group contains tea rooms, library, roof garden; and below, the executive offices, the bazaar, and the swimming pool. Beautiful form combinations and vistas make the interior treatment highly interesting and inviting. The level of the restaurant floor is seven feet above the sidewalk grade and nine feet below the grand promenade. The latter is reached from it by means of stairways, upper-level terraces or by elevators.

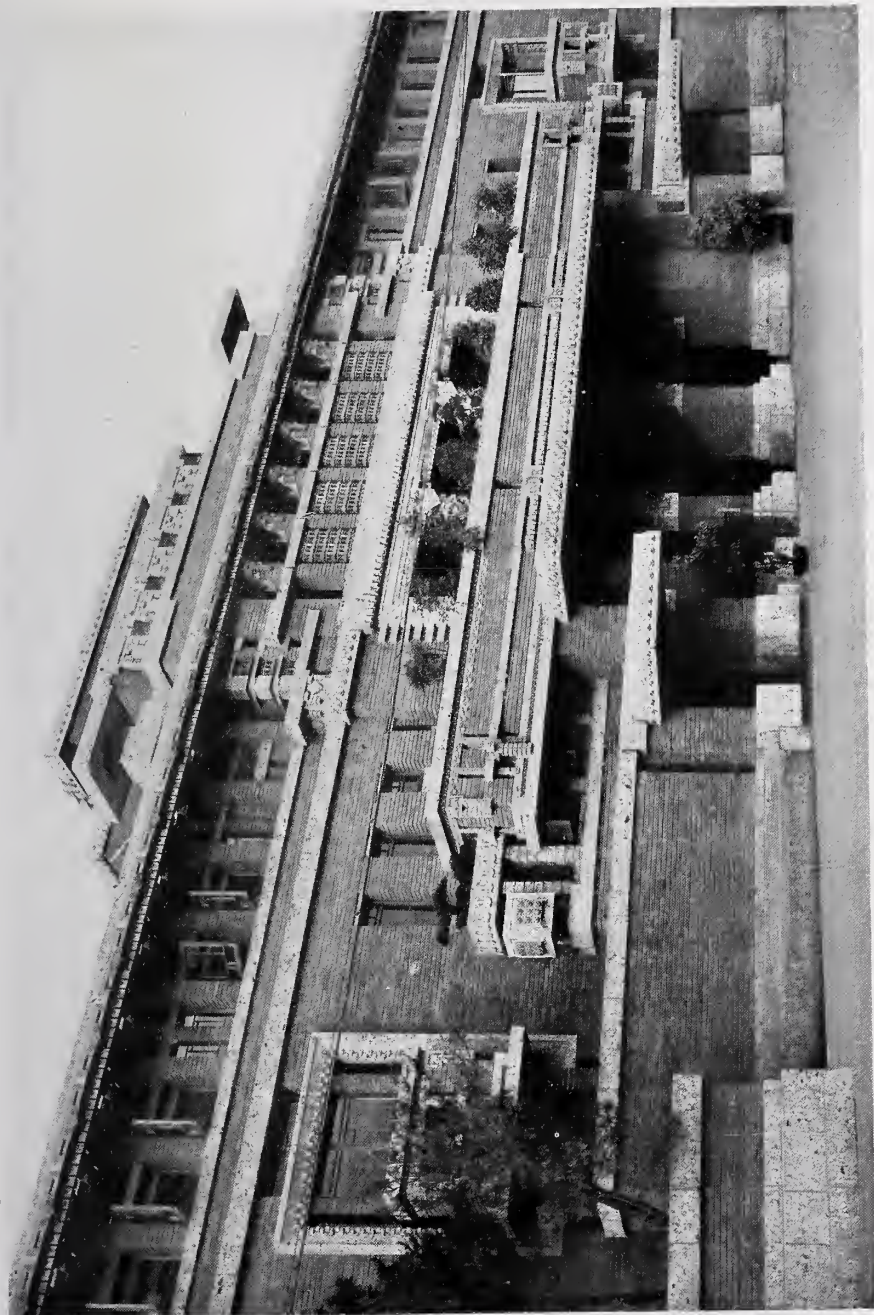
It cannot too often be reiterated that the terrace idea is the key to the development of the plan in its entirety and that this idea, seized upon by the constructive creative imagination, and carried into logical and beautiful extension, re-

veals the secret of the serenity and joy of this edifice. Nowhere is the sense of size oppressive, for the eye finds interest everywhere. Thus the structure may truly be called epic, as one views its large simplicity of utterance and richness of well ordered detail. Peculiarly entrancing in this latter regard is the treatment of the lava within and without the structure. Everywhere its surface is wrought in intricate pattern. Constantly varying in expression in accord with location, and so beautifully conceived and cut as to appear *of* it, integral with it, not applied. The effect is of a continuous, velvety shimmer of lava surface.

Among functional details are to be noted the system of external night-lighting, organically incorporated in large perforated units within the masonry at carefully considered strategic points; the terraced bridges which seem to float; the sumptuous treatment of the entrance to the social group; the recognition of the terminals of elevator shafts and of dumbwaiters. These latter utilitarian things are not hidden or denied, they are *affirmed*, as they should be, and add to the fullness and fidelity of expression. Indeed, it seems to be but little understood that fidelity to the finer truths inhering in material things is of the essence of romance. And this is a romantic edifice, heroic, dramatic and lyric in expression of function and of form.

A notable selection of local materials has been adopted for the external effects: hand-made brick and hewn lava are chiefly used with a most interesting interspersions of copper for the cornices and delicately worked copper roofs. All flat roofs are of concrete and are treated as gardens.

The color effect is quiet, yet piquant. The bricks are buff, the lava greenish yellow with deep brown spots, the copper turquoise. Minor color effects are secured in various materials, while to all of these effects appertains the added charm of gardens, and distributed shrubs and flowers—all of which are daily cared for; and potted and vased effects are



April, 1923

Entrance to Social Group.
IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.

The Architectural Record.

renewed as occasion requires and the changing seasons suggest.

The general construction of the building is definitely based upon the reinforced-concrete-slab idea, carried out by the architect theoretically and practically to its limits, in a manner so novel, so logical, so convincing, as to be of the highest technical interest to those familiar with the general slab idea. The specific application here has to do directly with a flexible resistance to earthquakes—developing shocks, undulations, oscillations, and twists, in action.

The entire structure rests upon a layer of spongy soil, beneath which is found mud of undetermined depth. Short concrete piles are inserted in the upper layer, where required and as numerous as required, capped by reinforced concrete slabs which receive their direct loads at calculated points. The entire structure thus rests upon a flexible foundation which is free to yield to the mutations of earthquake disturbance and come back to place again.

By a system of distribution of steel rods everywhere the masonry superstructure is knitted thoroughly together in such wise as to render it yielding but resilient, hence secure against fracture or distortion. The slabs are as tenaciously yet flexibly adjusted to the vertical supports, and, where occasion requires, the slab system merges from the concept of lintel into that of cantilever. There is here so general a use of this latter method, on account of its adaptability to projecting horizontal slabs otherwise unsupported and the resulting ease of creating unobstructed areas, that it may perhaps be described as in essence a reinforced-cantilever-slab-system.

In the construction of all outer walls wooden forms were dispensed with; the outer layer of specially notched bricks, and the inside layer of hollow bricks, serving as such. In the cavity between, rods, vertical and horizontal, were placed, and then the concrete filler, the wall thus becoming a solid mass of varied materials, into which the floor slabs are so solidly tied as to take on the character of canti-

levers, as conditions of disturbance might demand.

Thus we have a structure almost literally *hand made*—the use of machinery having proved relatively inefficient—a structure so solidly built of materials inseparably united as to possess all the virtues of a monolith, and yet so completely threaded through with steel fibres as to add the virtues of elasticity and resilience.

The policy of administration of actual construction work was based upon the traditional habits of the Japanese skilled laborer and craftsman. These active and tireless little men are so deft and nimble that results were most thorough, even though at first they required instruction in the use of materials with which they were not familiar.

This structure, designed theoretically and worked out practically to withstand distortion or fracture by earthquake, was put to the test while nearing completion in April, 1922, in broad daylight, during the heaviest temblor in point of severity Japan has known in fifty years. Wide destruction was wrought in the city of Tokyo. The shock was terrific. The Imperial was violently jolted. It visibly trembled, swayed and rocked in the upheaval, and at its ending quietly steadied to position, free of distortion, rents or damage of any kind.

So much for a system of construction altogether novel in conception and execution, carried out by a strong, persistent mind, as imaginative in its insight into fundamental principles of engineering as in its profound insight into the romance of breathing life and beauty, humanity and spirit, into forms and materials otherwise helplessly inert.

It is thus that the master mind works, to bring forth, out of the fabric of a dream, a fabric of enduring reality.

As to the interior, a noteworthy feature is the use of lava and brick in the grand promenade, the theatre, the restaurant and the banquet hall. It was a happy thought to penetrate the interior with materials of the exterior, thus giving a sense of enduring construction.

The equipment is thorough and complete; electric heating, light and motive



The Architectural Record.

End Pavilion.

IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.

April, 1923



The Architectural Record.

April, 1923

North Wing and Jinrikisha Approach.

IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.



The Architectural Record.

April, 1923

Detail of Pergola, showing relation of lava and brick.

IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.



The Architectural Record.

Sunken Garden, North Bridge and Social Group.
IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.

April, 1923

power, the usual telephone service, and a system of mechanical ventilation constantly in use and so arranged as to deliver cooler air in summer.

All furniture, rugs and hangings of the public rooms are of special design, simple, strong and rich, partaking of the character and specifically related to the forms of the structure in a fine play of polychrome.

The guest room arrangement of the wings has been worked out to conserve space, concentrate conveniences and preserve a quiet effect. The rooms are not large, but are arranged and furnished to become sitting rooms; the beds are in evidence more as couches than as beds. The typical small room is 15 by 18, with a 6 by 10 bathroom deducted. The typical large room is 15 by 22, bathroom similarly deducted. Average ceiling height 9 feet 4 inches. The electric heating and indirect lighting are combined in a standard attached to twin tables in the center of each room. These tables have a small writing table and a small tea table beneath them which may be removed to any part of the room, and, when not in use, may be returned to their places as part of the central group. The electric heat is thus at the center of the room. The wardrobe is a built-in feature of each bedroom, and is designed to accommodate a steamer trunk, a wardrobe trunk and two suit cases. It has ample hanging space for clothes, and the drawers of the old-fashioned dresser have been worked into this feature. There is storage space above it for purchases. A feature of this wardrobe is a guest-box accessible from the corridor or the bedroom at the will of the guest. This guest-box also contains the telephone. A full length mirror is placed against the side wall, and a small dressing table placed beside it. The central group of tables and this dressing table, together with an overstuffed easy chair or two, a light, wooden chair or two, and a hassock, are all the furniture of the room, except the couch-beds. It will be seen in this arrangement that great simplicity has been arrived at. An individual color scheme characterizes each

room. A specially designed rug to correspond is upon the floor. The furniture covering, bed covers and window hangings are of the same stuff and color, and correspond in each case with the color note of the room. The color scheme ranges through the whole gamut of color from quiet grays to bright rose and old blue or gold. The effect of the whole is quiet and complete. Everywhere there is ample light. Privacy is insured by the omission of the transom and the device of the guest-box. Cross-ventilation is secured in every room and bathroom by means of forced draught acting through ducts and a series of square ventilators set in the corridor partition above the picture rail. These are easily adjusted for summer or winter use. The corridor ceilings are all dropped beneath the concrete slabs to make continuous ducts, to which are connected the vertical vent shafts between every pair of rooms. These vertical shafts extend from basement to attic space and contain pipes and wiring, which are accessible and free of the construction everywhere.

The bathroom is an adjunct of the bedroom; in every case treated as a part of it. It is lined with ivory colored mosaic tiles, all external and internal corners curved. The bathtub is a sunken pool in the floor of the room, formed, with curved corners, of the same mosaic tile as the floor and walls. The room has a vaulted ceiling, and screened windows in the outer wall. The whole is drained and impervious to water in every part. The floor is electrically heated from below.

The main corridors of the guest wings are six feet wide, exposing the brick-faced concrete piers that support the floor, giving to the whole the effect of a cloistered promenade. The corridors are artificially lighted through perforated metal screens set into the ceiling. The corridor floors are cork-tiled. The threshold has everywhere been eliminated. Where plaster has been used the walls are treated with ground pearl shell splashed on to a heavy coat of paint in the Japanese manner. All the windows



The Architectural Record.

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Looking Across Entrance Pool to Side Wing.

IMPERIAL HOTEL, TOKYO, JAPAN
Frank Lloyd Wright, Architect.



The Architectural Record.

April, 1923

The Main Promenade.
IMPERIAL HOTEL, TOKYO, JAPAN.
Frank Lloyd Wright, Architect.

in the building are screened, shaded and curtained. The wood, where used in the trimming, is throughout of Hokkaido oak, waxed. Outside each large room is a tiled balcony or terrace reached by low windows opening upon it. Baggage rooms, in each wing, for the storage of guests' luggage, easily accessible at any time, are located next to the elevators on the general level.

Thus an attempt has been made by this writer to set forth as clearly as may be the nature of a great work of architectural art founded in this particular case upon the utilities associated with human needs, in its aspects of hotel life and administration; or, in another sense, the forms that have been caused by a luminous thought to arise in sublimated expression of these needs in visible forms of beauty.

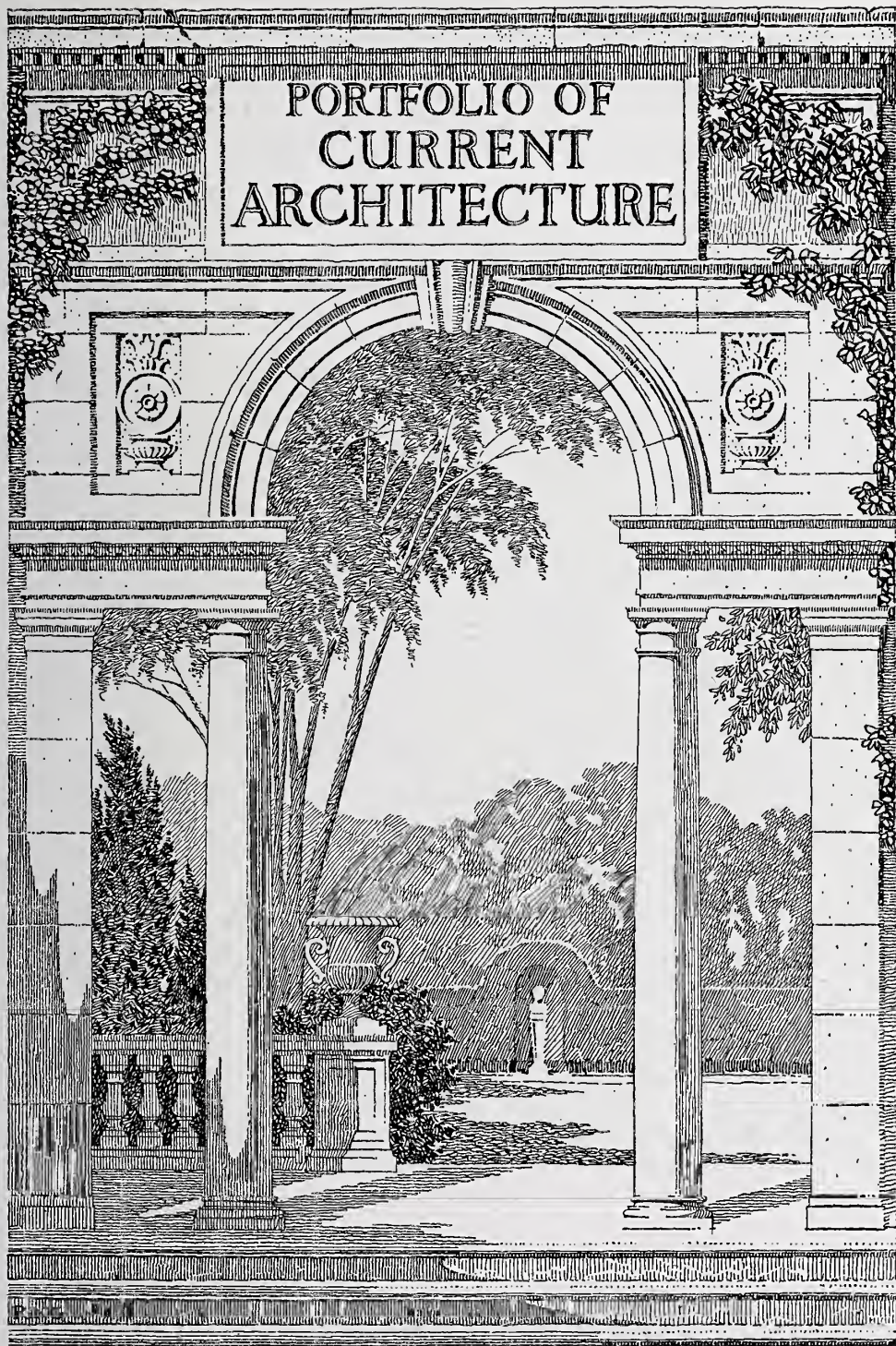
The true meaning of the word PRACTICAL is completely elucidated in this structure. For "practical" signifies explicit and implicit human needs. Such needs run a wide gamut of desire, ranging from the immediately physical and material, gradually upward in series through the desires of emotional, intellectual and spiritual satisfactions.

Thus we can understand how important is the play of imagination; for imagination is distinct from intellect. It lies deeper in life, and uses intellect as

a critical executive instrument wherewith to carry its visions of reality into reality itself, while determining its quality of procedure, at every stage. Otherwise intellect would dominate imagination, and pervert its ends.

Thus what we call art and what we call science are indissoluble within a masterful imagination. But imagination must be free to act in true accord with need and with desire as fundamental human traits; and intellect must be disciplined by the will to act in accord with imagination's fine desires. But for this initiative, and to this end, man's spirit must be free: unimpeded by irrelevant inhibitions. The vision of the free spirit ever seeks to clarify, to amplify what we call the commonplace. It sees within the so-called commonplace the elements of sublimity. Thus the architect who combines in his being the powers of vision, of imagination, of intellect, of sympathy with human need and the power to interpret them in a language vernacular and true—is he who shall create poems in stone, consonant with the finer clearing thought of our day, and the days of our expectancy.

In this regard the Imperial Hotel stands unique as the high water mark thus far attained by any modern architect. Superbly beautiful it stands—a noble prophecy.





The Architectural Record.

April, 1923

THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.

Cram and Ferguson, Architects.

The photographs of the Misses Masters' School reproduced in our February issue did scant justice to an interesting piece of work. We are glad to present a new set of views engraved from very beautiful photographs by Paul J. Weber, in which due attention has been given to composition, color, light, and shade.



The Architectural Record.

April, 1923

Class Room Wing from Terrace.

THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.
Cram and Ferguson, Architects.



The Architectural Record

General View of Completed Portion from the North.
THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.
Cram and Ferguson, Architects.

April, 1923



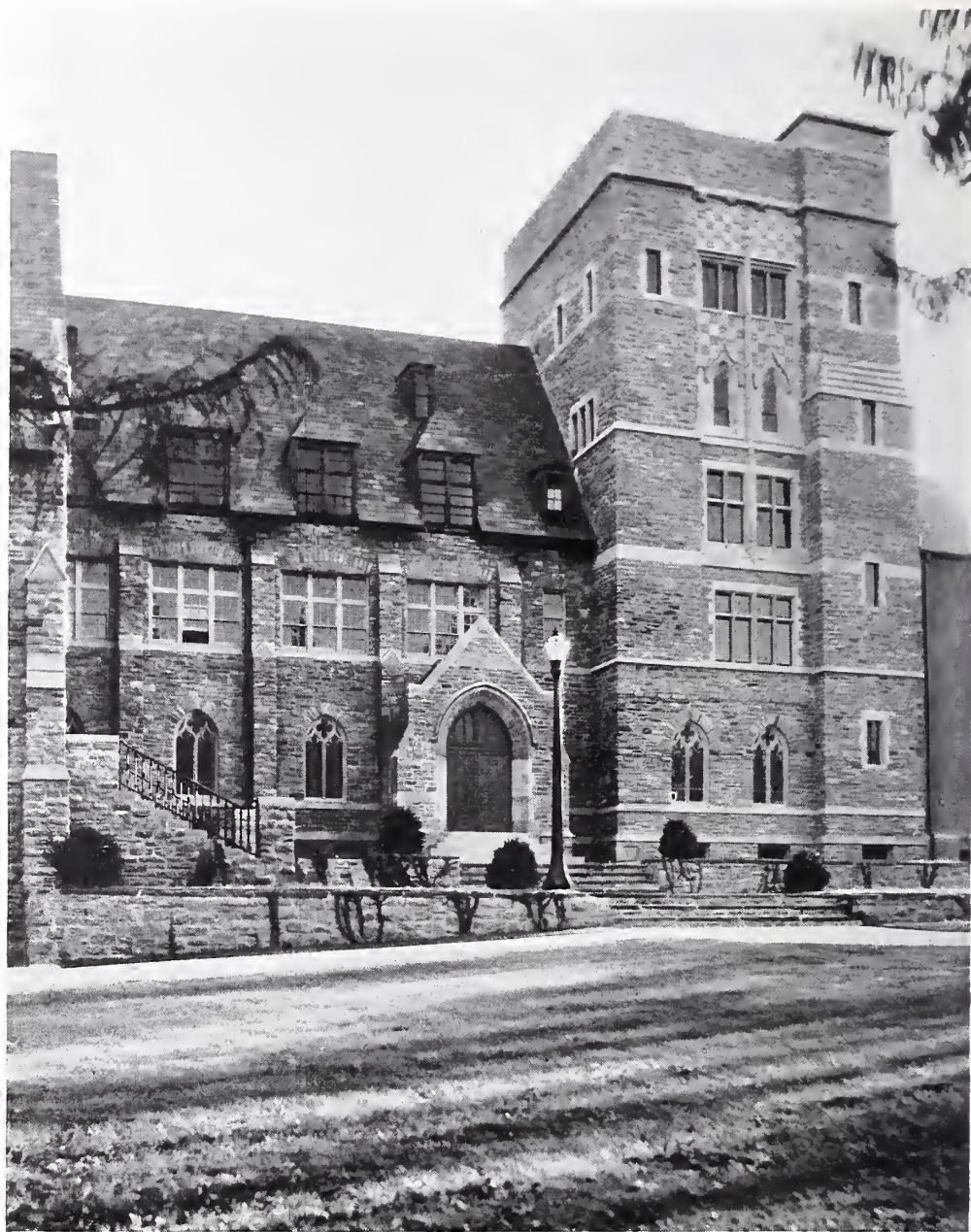
The Architectural Record.

View of School Wing from the East.

THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.

Cram and Ferguson, Architects.

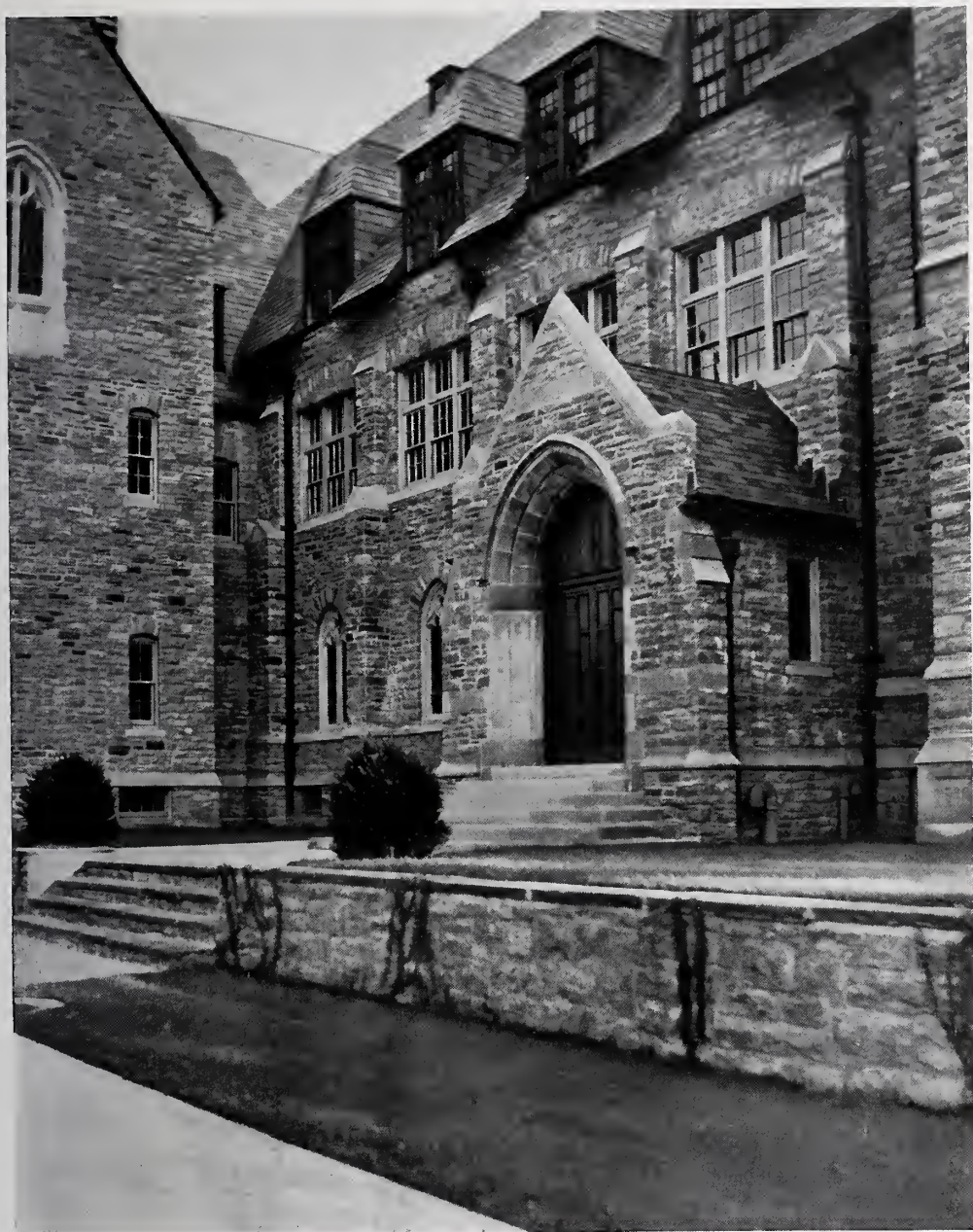
April, 1923



The Architectural Record

April, 1923

Centre of North Façade.
THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.
Cram and Ferguson, Architects.



The Architectural Record

April, 1923

Principal Entrance.
THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.
Cram and Ferguson, Architects.



The Architectural Record

Class Room Wing and Tower from the North.
THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.
Cram and Ferguson, Architects.

April, 1923



The Architectural Record

April, 1923

View in Library.

THE MISSES MASTERS' SCHOOL, DOBBS FERRY, N. Y.
Cram and Ferguson, Architects.



The Architectural Record

North Front.
LONG HOUSE, WILTON, CONNECTICUT.
Thomas H. Elett, Architect.

April, 1923



The Architectural Record

South Terrace.
LONG HOUSE, WILTON, CONNECTICUT.
Thomas H. Ellett, Architect.

April, 1923



The Architectural Record

Garden Front.
LONG HOUSE, WILTON, CONNECTICUT.
Thomas H. Ellett, Architect.

April, 1923





The Architectural Record

North Porch.

April, 1923

LONG HOUSE, WILTON, CONNECTICUT.
Thomas H. Ellett, Architect.



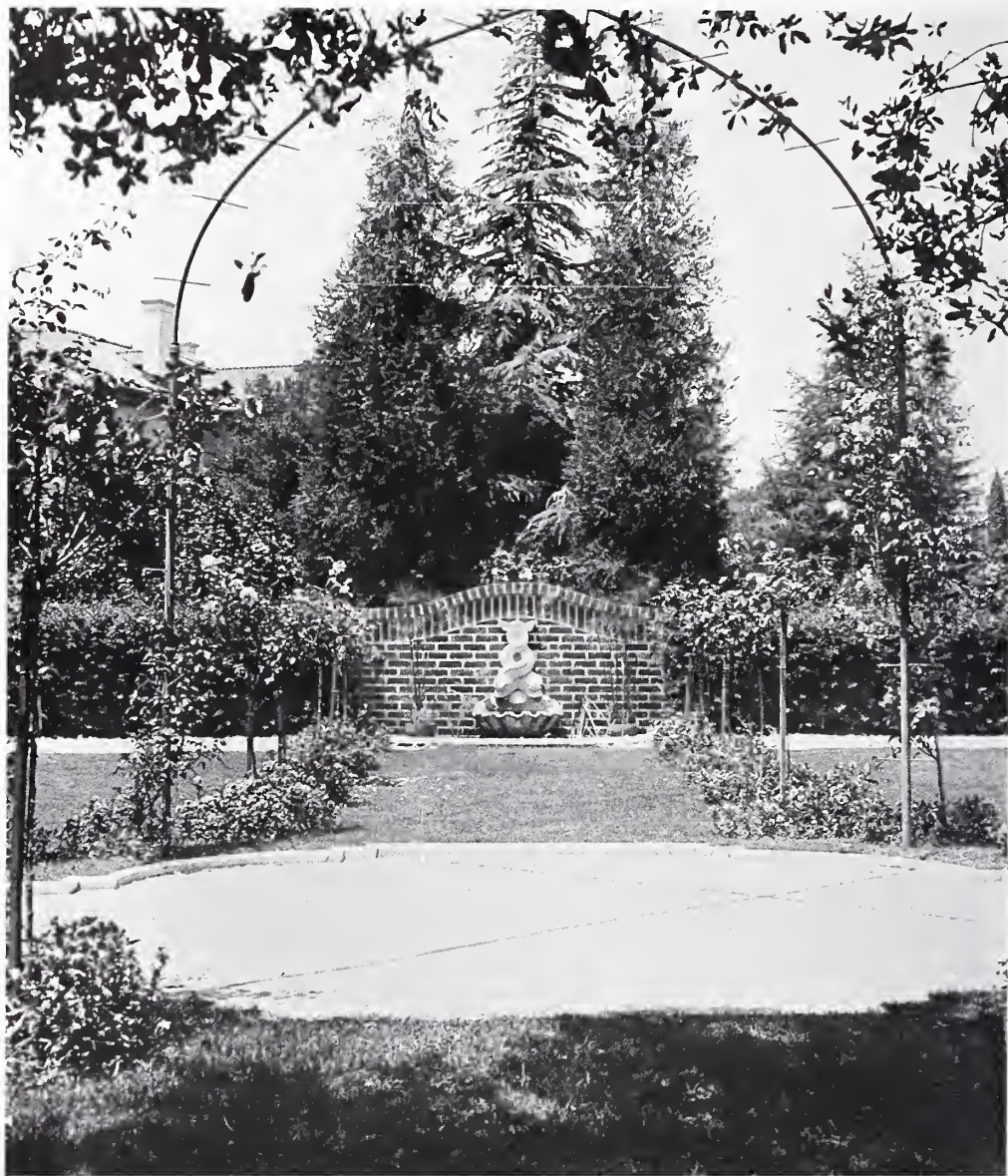
The Architectural Record.

Rose Garden.

RESIDENCE OF W. K. JEWETT, PASADENA, CAL.

Marston & Van Pelt, Architects, with Mrs. Jewett.
Planting by Florence Yoch.

April, 1923



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View in Garden.

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MISAPPREHENSIONS CONCERN- ING GOTHIC ARCHITECTURE

By Charles H. Moore

WHEN early in the last century the modern interest in what is called Gothic Architecture arose, there was no exact knowledge of any architecture of the middle ages anywhere in Europe. From the advent of the Italian Renaissance, the many varieties of Western European building then extant had been lumped together in one agglomeration and frowned on as uncouth products of the barbarism that had followed the break-up of the ancient civilization. But toward the close of the eighteenth century an antiquarian interest in things mediaeval was awakened, which at length gave rise to a literature, both Continental and English, that has obscured the subject by fixing attention on details and ignoring fundamental principles of structure. This literature is now voluminous, and the books all virtually agree in dividing mediaeval architecture into two categories, called respectively Romanesque and Gothic. By Romanesque is meant everything with round arches, and by Gothic everything with pointed arches. But discriminating observation of the monuments will show that they can by no means be thus properly classified.

With the so-called Romanesque we are not now concerned, but what in current usage is known as Gothic, calls for some examination, because it is made to include a style of wholly distinctive character, that needs to be disengaged from all other styles, namely, the architecture of the Ile-de-France of the twelfth century, which alone manifests this character, and which I conceive to be the true Gothic art.

The structural nature of this architecture differentiates it fundamentally from all other, and, in its full development, makes the building to consist of an organic skeleton of piers, arches, and buttresses supporting vaults of an entirely

new kind—the stability of the whole depending on an equilibrium of active forces, which is unique in building. In this architecture, walls exist only as curtains and spandrels. As curtains they are confined to the ground story and to the screens that shut off the triforium.

Enough remains of the beginnings of this style to show that it grew gradually and experimentally out of the organic Romanesque, i. e., that type of round-arched mediaeval building that had vaulting on groin ribs, with supports logically related to the ribs. It was the recasting and perfecting of this Romanesque system, and not the mere use of the pointed arch in openings, that brought into being the style of the Ile-de-France; as is clear from the use made of it in extant remains of the earliest buildings in which the new principles of structure are incipiently manifest. In these primitive works it is plain that the pointed arch was first employed on account of its advantages in vault construction. For in openings the round arch survived, as the monuments show, long after the new vaulting and its supporting system were far advanced, and even virtually perfected. Thus the French art was a creative evolution from inmost structure; the character of the external parts being a consequence of the internal organism. The evolution begins with the shaping and adjusting of the ribs of the vault so as to diminish and to concentrate thrusts; and with corresponding improvements in the composition of the piers, giving compactly grouped supports logically related to the vault members. The internal developments are accompanied by external ones, culminating in the flying buttress, at first concealed beneath the aisle roof, but at length sprung frankly over it. Then the windows and portals are gradually en-

larged, and sometimes pointed—as in the choir of Paris—until the walls, now seen to be no longer needed, are completely eliminated, and the building stands forth, a magnificent stone skeleton enclosed with glass—as at Amiens, Rheims and Beauvais.

In contrast to this unique French art, all other pointed architecture in Europe proceeds, in one form or another, on the ancient lines of walled building, with no tendency to develop a skeleton system. A semblance of such a system appears, indeed, in a great variety of forms, in many of the other pointed styles; but it is governed by no consistent principles, and is manifestly an unintelligent imitation of the French art. For however changed in superficial appearance by application of members pertaining to skeleton construction, the building remains in reality the old type of walled structure.

For the French system we may take a bay of the nave of Amiens, a monument in which every quality of the perfected style appears. We should look first at the vaulting, because, as to structure, everything else is a consequence of the rib skeleton of the vault, as will appear. We see that each vault compartment has on plan the form of an oblong rectangle, with its long axis running transversely to the nave; and that the ribs are independent arches springing from upright shafts incorporated with the great piers that rise from the pavement. We find six ribs in each bay—two spanning the nave transversely, two spanning it diagonally, and two spanning the narrow sides of the rectangle, and thus running longitudinally, or parallel with the long axis of the building. No other ribs occur in the French vaulting of the great age. These ribs are all pointed, but they vary in acuteness according to their spans, in order that their crowns may be nearly at the same level, save in cases where exigencies that cannot be discussed here have to be met.

It should be noticed that the longitudinal ribs do not spring from the same level as that from which the transverse and diagonal, or groin, ribs spring, but from points much higher up—being

stilted by the prolongation of their supporting shafts. This stilting of the longitudinal rib is of capital importance, for by means of it the thrusts of the vault are gathered on the pier, where they can be effectively met by the flying buttress, to be presently noticed.

On this strong rib skeleton the cells of the vault rest. The conformations of the cells are irregular, and are determined by the forms and adjustments of the ribs, to which they have to be shaped. It will be seen that their surfaces are slightly hollowed by the arching of the masonry of which they are composed, together with the arching of the vault from the springing to the crown. The arching from rib to rib is more marked in some parts than in others, and in places it may hardly appear at all. It should be noticed that in the lateral cells winding surfaces, like those of a plowshare, are generated. This is a consequence of the concentration of thrusts on the line of the pier, effected by the stilting of the longitudinal rib. Irregularities of surface naturally arise, of course, in all vaulting where the principle of interpenetrating half cylinders is departed from; but in this French vaulting they are peculiar and distinctive, and arise naturally as the vault is shaped to the rib skeleton.

Coming now to the shaft supports, we see that the great piers are compound, and that on the ground story they each consist of a great round column with four engaged shafts, which carry respectively the ribs of the aisle vaulting, the sub-orders of the great archivolt, and the transverse rib of the high vaulting. It will be seen that this tall shaft has no capital on the ground story, but that it rises continuously to the springing of the transverse rib of the high vault, which it carries, and there, of course, receives its capital. It is worthy of note here, that in the nave of Rheims, the logic of the system is violated by the placing of a capital at this point, although there is no arch here to be carried. We see next, in the pier of Amiens, that a smaller shaft on each side of the tall one, starts from the great capital of the ground story, to carry the groin ribs

of the adjoining compartments of the high vaulting, while a still smaller one, on either side, rests on the triforium string and reaches to the higher point from which the longitudinal rib springs. There is thus a logical relationship between the shafts of the pier and the ribs of the vaulting. It should be said, however, that the vault ribs are not wholly or equally supported by the shafts; they find support in the main body of the pier also, though in different degrees. The transverse rib is carried by the shaft that rises from the pavement, the diagonal, or groin rib gets more support in the main column, but the longitudinal rib is adjusted in a peculiar manner which must be explained. This rib does not spring directly from the capital of the shaft in the usual way. It springs out of the skeleton arch which forms part of the tracery of the head of the openings. And it does so because its span is such that the intrados at the springing is in retreat of the shaft, and so the roll moulding of the skeleton arch is what springs directly from the shaft. It should be understood that in the perfected French system, as we have it in the nave of Amiens, there being no wall in the clerestory, the longitudinal rib is also the archivolt of the opening.

It will be seen that the shafts of the pier are graduated in magnitude conformably with their respective functions—the larger one bearing the great transverse rib, the next in size taking the groin rib, and the smallest answering to the longitudinal rib in the manner just described. The longitudinal rib, in this skeleton construction, being, as I have said, the archivolt of the opening, appears on the outside of the building as well as within, and is therefore furnished with a shaft on the outside corresponding with the one inside. These small shafts are for the eye more than for actual function, since the main support of the longitudinal rib is the main body of the pier.

The buttress system was, unhappily, remodelled in a later style, save for one member of the series on each side of the nave, next the transept, which appears to have retained its original form, and con-

sists of a heavy rectangular pier, standing against the respond of the aisle, of which, indeed, it is an integral part, and carried up to a great height above the aisle roof. From it spring a pair of superimposed flying buttresses, which are brought to bear on the pier where the thrusts of the vaulting are gathered.

Returning for a moment to the interior, a few further details may be noticed, which are peculiar to the French art. It will be seen that the great capitals of the ground story are compound in conformity with the shaft system, each of them having a large member to crown the great column, and a small engaged one for each of the small shafts. It will be seen that the small ones are proportioned in height to their smaller diameters, and that thus their supporting shafts have to be carried up through the lower part of the great capital in order to reach them. The whole composition is one of consummate beauty, as well as of structural logic. The twelfth century French capital, with its fine concave outline, its square abacus, and the thoroughly lithic expression of its simple living foliation, is one of the finest architectural objects ever produced; and the entire pier is, I think, a supreme achievement of the French genius.

As an example of other mediaeval pointed architecture—which, though of many kinds, is essentially all alike in being inorganic walled building—we may take for comparison the nearly contemporaneous nave of Lincoln, a work commonly ranked among the finest in England. Here we find a widely different structure, in which a skeleton system is irrationally simulated, as the most cursory observation ought to show. We see first, that the vaulting is complicated by the introduction of superfluous members, while yet one of the most important parts of an organic skeleton, the longitudinal rib, is wanting. The superfluous members—superfluous because without necessary function—are, a ridge rib, a tierceron between the transverse rib and the groin rib, another between the groin rib and the ribless wall arch, and a short liern connecting the tierceron with the ridge

rib. The clerestory is heavily walled, but the openings are large, and there is a clerestory passage in the thickness of the wall, so that the openings, with their dividing members, are in two planes. But the clerestory passage in the wall cannot exist in a true skeleton structure, because there is no wall in the clerestory.

It should be noticed that the ribless longitudinal arch of the vault is not stilted, therefore there is no concentration of the vault thrusts. The form of this arch is semi-elliptical, like that of the Norman vaulting of Durham. The conformations of the vault surfaces are naturally irregular, but they are not such as result from a logical rib system, like that of Amiens.

Coming now to the upright supports, we find that the pier, as a continuous compound member starting from the pavement, with shafts logically related to the ribs of the vault, does not exist. Thus the ground story system has no organic connection with the superstructure by members common to both. The supports here consist of large round columns surrounded with small shafts related to the arch orders of the great arcades only. The upper shaft system, being distinct from the lower, rests on corbels fixed in the arcade spandrels at a considerable distance above the ground story imposts. The shafts are merely ornamental, being too small for any structural function, and there are only three in each group. On them are seemingly gathered five great vault ribs, which have to interpenetrate at their springing so that only one member of the mouldings of each rib stands free at the impost, while the two other ribs—one on each side between the groin rib and the wall arch—die away in the wall far above the vault impost.

On the outside, a shallow buttress stands against the aisle wall, but does not rise above it. It is crowned with a steep gable, backed by a short bit of buttress, from which a weak single flying buttress, close to the aisle roof, springs, and is brought to bear against the clerestory wall. It is thus ineffective, and the vault thrusts are taken for the most part by the ponderous walls. I have likened the

nave of Lincoln, in point of structure, to that of Durham. The two are essentially the same in principle; and it will be found on proper examination, that all so-called English Gothic architecture is in reality unchanged Norman Romanesque in structural character.

The French art stands by itself, and therefore to avoid confusion it should have a name to itself. As for the propriety of calling it Gothic, discussion will be futile till some common understanding of the proper meaning of this term is reached. Hitherto little consideration with fruitful result has been given to this matter. In its present widely inclusive architectural acceptance, it conveys no definite meaning. It arose, as is well known, out of the ancient Roman habit of calling everything barbaric that was not Roman, a habit that survived with the Italians of the Renaissance, who used the word Gothic in the sense of barbaric and applied it to all mediæval art. But no European art of the Middle Ages was a product of barbarian Goths. For although the Teutonic peoples known as Goths were barbarians when they first came in contact with the Romans, they were profoundly transformed in character under Roman influence. In Italy and Gaul, where the Gothic blood was extensively fused with that of the peoples who were heirs of the ancient culture, its grosser nature was subdued, and by the twelfth century this fusion had produced, in the Ile-de-France, the finest results in civilization and culture.

If a name is to convey a definite meaning, it must stand for a thing marked off from other things by a distinctive character. The French art alone among the architectures of the Middle Ages in Western Europe is, as we have seen, thus marked off, and since it derives its peculiar character from what was contributed by the Gothic element in the French genius—an element which gave the new creative spirit—it may, I think, be properly called Gothic. While for the widely inclusive polyglot of other mediæval building to which the pointed arch is common, but in which the Gothic genius is manifested but partially and imper-

fectly, if at all, the term pointed may serve well enough, as I said long ago. For more specific designation of each of the other many varieties of pointed building, the terms English Pointed, Italian Pointed, Burgundian Pointed, Norman Pointed and so forth, would be proper. This would avoid the confusion that now beclouds the subject.

For right apprehension of the French Gothic ideal, it is necessary to realize that no monument of the style was ever completed according to one original scheme. Not one of them is homogeneous in character. Style was ever changing, and parts were built at different times as resources were forthcoming, and always in accordance with what was in vogue at the time when the work was done. Thus it not seldom happens that the whole history of Gothic architecture, from its beginning to its decline, may be studied in a single building. The cathedral of Amiens itself affords an illustration of this, and it will be worth while briefly to notice some of the different phases of style that appear in the monument as it has come down to us. Taking the interior first, the part that immediately followed the nave is the transept, in which the general scheme of the nave is reproduced, save for the vault over the crossing—which exhibits a striking departure from the principles of early-mature Gothic vaulting. Complications of structure akin to those that we have observed in the vaulting of the nave of Lincoln appear, and show an influence from England, of which there are many indications in the later Gothic art of France.

The choir still follows the nave in its general features, save for one important particular in which it departs widely from it, namely, the elimination of the triforium—for this is the result of the scheme adopted here by which light is admitted through the triforium arcade. The triforium of a French Gothic building is necessarily dark because, being the space between the aisle vaulting and the lean-to timber roof that covers it, no light gains access. But in this case, in order to get light through the arcade, the lean-to roof is omitted, and a series of low hipped

roofs, one over each bay of the aisle, substituted—the screen wall, normally separating the triforium from the triforium passage, being replaced by glazed openings. If light were needed here, the rational way to obtain it would be to bring down the clerestory openings to the level of the former triforium string. By this elimination of the triforium, the building is in reality reduced to two stories, and the bringing down of the clerestory openings would properly express this fact. There is, however, no need for light here, for the whole interior is superabundantly lighted by the vast clerestory and aisle openings. The triforium stage of the choir is thus an architectural simulation, which marks a departure from the principles of the French art in its integrity. There is also noticeable in this choir, an ornamental redundancy in the introduction of crocketed gables over the arches of the arcades, and in the multiplication of mullions and tracery in the clerestory. But these are only first steps in the direction of ornamental excess that reaches its fulness in the so-called Flamboyant style.

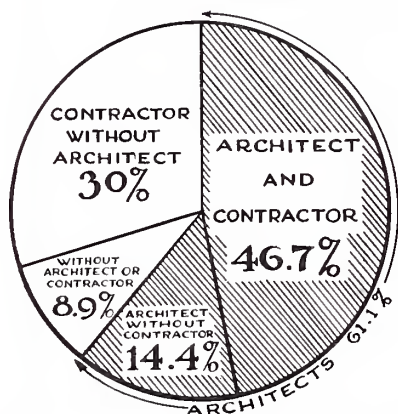
Externally, the flying buttresses of the choir depart equally from the structural and ornamental character of Gothic art in its prime, as it appears in the original buttress system of the nave described above. Instead of the two solid arches of the buttress of that system, we have only one solid arch here, with a skeleton arch springing out of it, in Flamboyant fashion, and carrying an open ramp arcade.

The west front—in the main a work of the mid-thirteenth century—already become somewhat florid, is yet alive with the finer Gothic spirit. It is, however, disfigured in the upper parts by Flamboyant interpolations, and by the tracery of the great circular opening. Thus Amiens is far from being a homogeneous work, and this is the case, in varying degrees, with all other Gothic monuments. Among those which are most alike in style are Chartres and Rheims, but even these show parts belonging to different epochs, and differing widely in style.

Right apprehension of the nature of Gothic architecture requires that all these things should be realized.

Percentage of Construction Planned by Architects Year 1922

27 NORTHEASTERN STATES

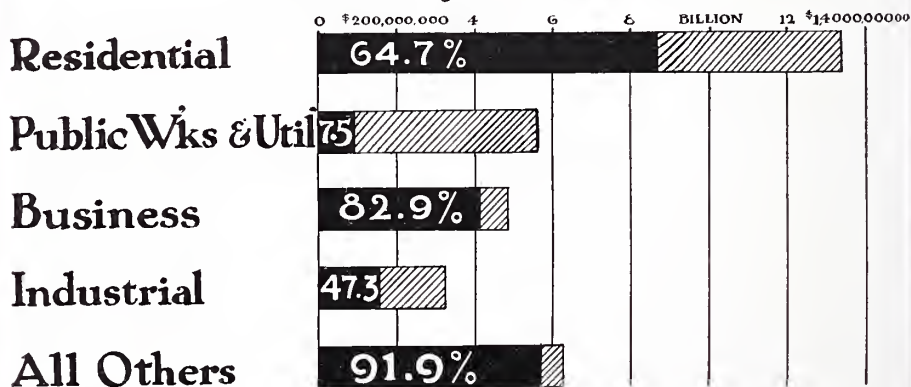


TOTAL CONSTRUCTION
\$ 3,345,021,800

PLANNED by ARCHITECTS
\$ 2,045,269,400

Analysis of Construction by Classes

Black Areas Show Percentage
Planned by Architects



FIGURES TABULATED FROM DODGE CONSTRUCTION REPORTS

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The ARCHITECT AS A FACTOR IN THE CONSTRUCTION BUSINESS ~

BY

THOMAS S. HOLDEN, *Statistician*
F. W. Dodge Corporation

In the ARCHITECTURAL RECORD for September, 1922, there appeared an article with the same heading as the present one, based on an analysis of construction projects reported during the first half of 1922 in the 27 northeastern states. The Statistical Department of F. W. Dodge Corporation has recently completed this analysis for the entire year 1922. This, then, is the first opportunity to present a complete analysis based on the record for an entire year and for a territory which includes three-fourths of the total construction of Continental United States.

The completeness of the new record is the reason for its publication. Any conclusions drawn from the previous article are practically unchanged by the new figures. In only one class of construction projects are the percentages appreciably changed,—Industrial Buildings. The previous analysis showed 56.0 per cent. of the total work in this class (based on volume in dollars) as planned by architects; the new analysis shows 47.3 per cent. This wide variation is more or less accidental, as one large project, recorded in the second half of the year, a 35-million dollar steel plant, planned without an architect, affected the figures very considerably. This project alone accounted for more than 10 per cent. of the year's total in this class.

While the essential facts of the summary published in September are unchanged by the new figures, it is well to restate them in terms of the complete year's record.

Total construction projects started in 1922 in the territory under consideration numbered 107,636, amounting to \$3,345,021,800. Of these projects, 42,900, amounting to \$2,045,269,400, were

planned by architects. Architects planned 39.9 per cent. of the total number of projects, which amounted to 61.1 per cent. of the total cost.

If the classification "Public Works and Utilities" (largely made up of engineering projects, such as streets, roads, bridges and sewers) be omitted, it is found that, of all other classes combined, architects planned 43.5 per cent. of the total number of projects, amounting to 72.0 per cent. of the total cost. All these percentages are slightly lower than those shown in the previous statement.

The average cost of all projects reported (See Table I) was \$31,077; of projects planned by architects and built by contractors, \$52,410; of projects planned by architects and built without general contractors, \$36,884; of all projects planned by architects, \$47,675. The average cost of projects planned without architects and built by general contractors was \$24,132; of projects built without architects or general contractors, \$12,859; of all projects planned without architects, \$20,078.

An enumeration of architects in the Dodge territory made in the summer of 1922 showed a total of 6,653 firms, or 1 architectural firm per 11,509 of population. The per capita construction in 1922 was \$43.69.

Sectionally, the 1922 record was as follows:—

In the New England States there were 642 architectural firms, or 1 for each 11,526 of population; the per capita construction amounted to \$45.08; the percentage of total construction planned by architects was 57.3 (based on volume in dollars).

In New York State and Northern New Jersey there were 1,925 architects, or 1

ANALYSIS OF CONSTRUCTION PROJECTS—27 NORTHEASTERN STATES—YEAR 1922—TABLE I

Class	Planned by Architects						Planned Without Architects						Totals	
	General Contractor			Without Contractor			General Contractor			Without Contractor			Total	
	No. Proj.	Cost	No. Proj.	Cost	No. Proj.	Cost	No. Proj.	Cost	No. Proj.	Cost	No. Proj.	Cost	No. Proj.	Cost
Business Buildings	5,880	\$359,845,800	1,620	\$51,562,500	3,637	\$63,729,500	1,496	\$21,007,400	12,633	\$496,145,200				
Industrial Buildings	1,583	132,990,800	313	20,907,900	1,493	152,849,500	488	18,351,900	3,877	325,100,100				
Public Wks. and Utilities	524	40,349,200	59	1,788,700	9,677	511,321,700	166	8,606,700	10,426	562,066,300				
Residential Buildings	16,092	487,504,200	10,597	379,157,300	25,343	226,717,100	20,955	246,702,200	72,987	1,340,080,800				
Miscellaneous	5,739	542,062,100	493	29,100,900	1,303	45,752,400	178	4,714,000	7,713	621,629,400				
Totals, omitting Public Works and Utilities	29,294	\$1,522,402,900	13,023	\$480,728,600	31,776	\$489,048,500	23,117	\$293,775,500	97,210	\$2,782,955,500				
Totals	29,818	\$1,562,752,100	13,082	\$482,517,300	41,453	\$1,000,370,200	23,283	\$299,382,200	107,636	\$3,345,021,800				

NOTES.—The group "MISCELLANEOUS" includes Educational Buildings, Hospitals and Institutions, Military and Naval Buildings, Public Buildings, Religious and Memorial Buildings, and Social and Recreational Buildings.

The number of buildings is not, in the case of residential buildings, the same as the number of projects. Of the residential projects given above, 8,554 were for 2 or more houses built as a single operation, a total of 51,483 houses. Consequently, the 72,987 residential projects covered 115,916 buildings.

TABLE II

PERCENTAGE OF TOTAL IN EACH CLASS AND IN ALL CLASSES, BY NUMBER OF PROJECTS AND BY COST

Class	Planned by Architects						Planned Without Architects						Total	
	General Contractor			Without Contractor			General Contractor			Without Contractor			Total	
	Proj.	Cost	Proj.	Cost	Proj.	Cost	Proj.	Cost	Proj.	Cost	Proj.	Cost	Proj.	Cost
Business Buildings	46.6%	72.5%	12.8%	10.4%	59.4%	82.9%	28.8%	12.8%	11.8%	4.3%	40.6%	17.1%		
Industrial Buildings	40.8	40.9	8.1	6.4	48.9	47.3	38.5	47.0	12.6	5.7	51.1	52.7		
Public Wks. and Utilities	5.0	7.2	0.6	0.3	5.6	7.5	92.8	91.0	1.6	1.5	94.4	92.5		
Residential Buildings	22.1	36.4	14.5	28.3	36.6	64.7	34.7	16.9	28.7	18.4	63.4	35.3		
Miscellaneous	74.4	87.2	6.4	4.7	80.8	91.9	16.9	7.4	2.3	0.7	19.2	8.1		
All Classes except Public Works and Utilities....	30.1%	54.7%	13.4%	17.3%	43.5%	72.0%	32.7%	17.6%	23.8%	10.4%	56.5%	28.0%		
All Classes.....	27.7%	46.7%	12.2%	14.4%	39.9%	61.1%	38.5%	30.0%	21.6%	8.9%	60.1%	38.9%		

Figures Tabulated from Dodge Construction Reports.

per 6,679 of population; the per capita construction amounted to \$69.40; work planned by architects, 78.8 per cent.

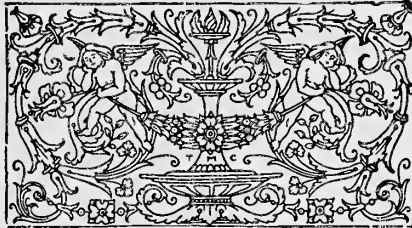
In the Middle Atlantic States (Eastern Pennsylvania, Southern New Jersey, Maryland, Delaware, District of Columbia, Virginia and the Carolinas) there were 832 architects, 1 for each 17,557 of population; per capita construction, \$33.47; work planned by architects, 53.1 per cent.

In the Pittsburgh District (Western Pennsylvania, West Virginia, Ohio, Kentucky and Tennessee) there were 932 architects, 1 firm for each 16,553 of population; per capita construction,

\$37.64; percentage of work by architects, 48.8.

In the Central West (Illinois, Indiana, Iowa, Wisconsin, Southern Michigan, Missouri and Eastern Kansas) there were 2,112 architects, 1 per 10,547 of population; per capita construction, \$43.58; work planned by architects, 58.4 per cent.

In the Northwest (Minnesota, the Dakotas and Northern Michigan) there were 210 architects, 1 per 19,044 of population; per capita construction, \$19.64; percentage of work planned by architects, 53.1.





The Chicago Tribune Competition

The "skyscraper" is, or in its ultimate form, will be, America's chief contribution to the world's architecture. Correctly treated, the office building of steel with its innumerable stories soaring heavenward, is the most appropriate expression of the noble aspirations and high ideals of the great nation which gave birth to it.

The day has passed when we can rest content with the stock solution, consisting of Corinthian order for the three lowest floors, Ionic for the top two, and twenty or thirty unadorned stories of steel sash and terra-cotta sandwiched in between. We by no means today regard with the same satisfaction as of yore McKim, Mead and White's New York Municipal Building. Immaculately detailed though it is, it appears to fall short of the Ideal among the various solutions of the "skyscraper" problem. York and Sawyer, with others of this generation, have produced office buildings of merit, and Mr. Platt has given us an edifice of great dignity and admirable detail in the Cleveland Leader News Building. Despite this, the Classic does not seem to be the "last word" in the way of a covering for the nakedness of the steel structure. And the Gothic? What of it? We have all paused to gaze in rapt admiration at the magnificent proportions and beautiful detail of Cass Gilbert's Woolworth Building. In some sort we have admired the Bush Terminal, and have been greatly interested in certain dwarf "Woolworths" which we have seen. But surely the multiplication of highly ornate flying buttresses and other features which should be structural, in heavily reinforced terra-cotta; the enormous gargoyles wonderfully designed and fearfully made, hundreds of feet above the vision of mortal

eye; surely this, we say, is but "dodging" the issue, avoiding the problem, getting away from the ultimate solution of the "skyscraper." No! The gothicized office building is perhaps even less satisfying than that treated by classicists of the D. H. Burnham school. In most cases it is but an enlarged medieval cathedral, subdivided vertically into many stories and horizontally into numerous offices.

Architecturally, the "skyscraper" has not yet assumed a distinctive character, although structurally it is the most stupendous creation since Brunelleschi's dome. In recent years great interest has been awakened by two architectural competitions. The first of these was the competition for the choice of architect for the new Capitol for the State of Nebraska. That truly great scholar and artist, Mr. Bertram Grosvenor Goodhue, was awarded first prize, and the announcement of his name as that of successful competitor awakened great hopes in the minds of all who are acquainted with his work. Our disappointment was great when we saw the drawings and realized that the designer in his striving toward "something new," had almost entirely sacrificed beauty to originality.

The second competition arose when the Chicago Tribune desired to obtain a design for the world's most beautiful office building. Again our hopes are raised. We feel that something of matchless merit, of beauty and originality must result from this competition.

The awards are made.

First prize—A most creditable exercise in the Gothic mode of treatment for an office building. In some ways beautiful, certainly impressive, and quite a scholarly essay in a most hackneyed style. The very name of its designer is sufficient guarantee of its scholarly character. After all, though, can this be said to be a design for the most

beautiful office building in the world? Is it not rather, merely one more pleasing building amongst others equally meritorious? Can it even compare with the Woolworth Building?

Second prize—Before we finished writing the above, after seeing photographs of several of the designs submitted, we were handed a copy of the "Architectural Record" with its inspiring article by Louis Sullivan upon this very subject. While we do not by any means agree with many of Mr. Sullivan's "spiritual" arguments, and have never fully understood either his psychology or his theories on Architecture, yet we would give a hearty amen to his claims for the superiority of the second prize design.

Here America, personified for the moment in the jury of award, had her grand opportunity. We believe with our whole heart, that Eliel Saarinen's design for the new building of the Chicago Tribune is the nearest to America's Ideal as set forth by and in Architecture, that we have yet approached.

Idealism?

Ambition?

Aspiration?

Why, the building proclaims it in all its lines. Not with any harsh sound, or in noisy manner, but with wonderful, tireless, beautiful insistence.

An old, and very academic, friend of mine reminds me that this design cannot possibly be correct, because "THERE IS NO CROWNING MOTIF," no horizontal lines to break the vertical up-sweep. Why should these be? Indeed, how could there be? Has America's aspirations toward freedom, liberty and civilization, toward her Ideal, any terminus save the clouds of heaven itself? We think not. American civilization is a tower "whose top may reach unto heaven."

Truly our Finnish friend has solved the problem in his beautiful emphasis upon verticality. He may be all wrong, according to our stereotyped rules of art, but, to paraphrase the great Webster, "But, gentlemen of the jury, LOOK AT IT!"

It stands quite alone in its grandeur. All the other designs; all "skyscrapers" before built, seem but feeble strivings toward the Ideal, when compared with this master work of a giant in architecture.

Finally, after a long and close observation of the American people, I am forced to the conclusion that they are supremely and primarily *sane*. Starrett and Van Vleck, whose newer work has been so admirably shown and commented upon in a recent issue of the "Record," are already in the

van of a movement toward the new conception of the problem of the modern office building. Despite the apparent near-sightedness of those who were responsible for the final award in this instance, we cannot but believe that posterity will have reason for gratitude to the Chicago Tribune in calling this competition. We are confident that the second prize design will have such an effect upon our designers, coming at a critical time as it does, when we are thoroughly "fed up" with the old method of "dressing" our steel buildings, that through its influence will be born a really distinctive, a truly American, Architecture.

H. HAROLD KENT.

The Summer School at Fontainebleau

We are reminded by Mr. Ronald H. Pearce, Secretary of the Executive Committee, that students who wish to go to Fontainebleau this summer must send in their signed applications

as soon as possible so that steamship reservations may be made in time. The Summer



School will be held from June 25th to September 25th, and the number of students is limited to one hundred.

All applications for admission should be accompanied by a note, clearly stating where, with whom and for how long the candidate has studied; and this note should be supplemented, if possible, by a letter of recommendation from the director of the school or institution at which the candidate has studied.

All applications should be made: for architects, to Mr. Whitney Warren, care Beaux Arts Institute of Design, 126 East 75th Street, New York; for painters and sculptors, to Mr. Ernest Peixotto, care the Mural Painters, 215 West 57th Street, New York. The American headquarters of the school are in the National

Arts Club Studios, 119 East 19th Street, New York, to which all business matters connected with the school should be addressed.

By reason of the low cost, made possible by the French authorities, the summer session of the Fontainebleau School of Fine Arts is brought within the reach of most students. Board, lodging and tuition fees, with the trips by motor-bus, are, all included, about \$100 per month. The French steamship line also allows a discount of 30 per cent to students, bringing the price of a comfortable passage as low as \$95. The registration fee is \$10. Thus \$500 would represent the entire cost of a summer spent at the school.

**In Honor of
Sir Christopher
Wren**

The recent 38th Annual Exhibition of the Architectural League was strengthened and embellished by a comprehensive exhibit of the work of notable contemporaneous English architects officially shown for the first time in this country through the courtesy and interest of Paul Waterhouse, Esq., the President of the Royal Institute of British Architects, seconded by the untiring efforts of Mr. Alfred C. Bosson.

This exhibition took on further significance by the fact that simultaneously in England and here in America there was offered to Sir Christopher Wren, perhaps the most notable of all English Architects, the honors of bicentenary remembrance. The Institute of British Architects set aside a week of celebration, during which a special delegation placed a wreath upon the tomb of Sir Christopher Wren in St. Paul's Cathedral. The Architectural League of New York arranged with Ambassador Harvey to have a representative from the Embassy also place a wreath upon the tomb, while simultaneously in New York the President of the League, Mr. Howard Greenley, hung a wreath under the portrait of Sir Christopher Wren in the annual exhibition.

Mr. C. H. Ferber announces that he is now located at 1027 Dixie Terminal Building, Cincinnati, Ohio, and desires to receive manufacturers' catalogues.

Herbert M. Greene of the Herbert M. Greene Company, Architects and Engineers of Dallas, Texas, announces that Walter C. Sharp, W. Brown Fowler and Ralph Bryan, are now associates in the firm. The firm name of the Herbert M. Greene Company remains, as does the present address of 620 North Texas Building.

Mr. Joseph R. Fallon advises that he is connected with Mr. H. M. Griffin, architect, at 606½ Central Avenue, Connersville, Indiana, for the practice of general architecture and designing, and will appreciate manufacturers' samples and catalogues.

J. Rice Scott & Co., architects and engineers, announce the opening of an office at Salinas, California, and desire manufacturers' samples and catalogues.

The partnership existing between H. M. Beutell and Bradford Hardie, Jr., has been dissolved, Mr. Beutell remaining at the same address. Mr. Hardie has established an office at 684 First National Bank Building, El Paso, Texas, and desires manufacturers' samples and catalogues.

Messrs. Batey & Halloran, architects, formerly located at Huntington, West Virginia, have opened offices at 540 North Seventh Street, Steubenville, Ohio. Samples and catalogues requested.

Mr. John Pickering Thomas, A. I. A., announces that he will continue the practice of Poor & Thomas, architects, under the name of John P. Thomas, architect, at 537 Congress Street, Portland, Maine. He has associated with him Messrs. Murray Crossman Binford and Albert Cyprian Hobbs, C. E.

Mr. George Bain Cummings announces the removal of his office to 520 Security Mutual Building, Binghamton, New York. He desires to receive manufacturers' catalogues and samples.

Mr. Arthur C. Yost, A. I. A., formerly of Richardson & Yost, Architects and Engineers, is now installed in new quarters at 519 Caxton Building, Cleveland, Ohio.

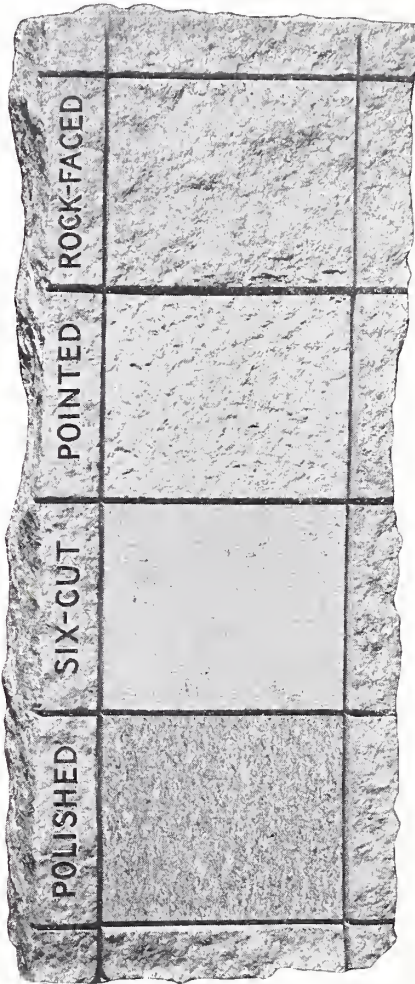
The
ARCHITECTURAL
RECORD



MAY

1923

Chelmsford
Gray Granite



A Trip to Chelmsford

IF every reader of the Record who uses or specifies building granite, could go through our quarry and cutting plant at West Chelmsford, he would find it not only interesting, but well worth while.

We realize you cannot all visit the quarry, so we are going to bring the quarry and plant to you, not all at once, but a little each month on this same page, just to show you why Chelmsford Gray Granite is the desirable material we claim it to be, and how we can produce it at such reasonable cost.

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*We will gladly mail a sample
to any practicing architect
upon request.*

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The ARCHITECTURAL RECORD

Vol. LIII
No. 5

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The Architectural Record.

May, 1923

Cafeteria Wing.
Detail Perspective of Pool Group.

NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.

The ARCHITECTURAL RECORD

VOL. LIII

MAY, 1923

NUMBER 296

The DEVELOPMENT OF AN INDUSTRIAL GROUP —

“ NEW BUILDINGS at NELA
PARK IN CLEVELAND ”
FRANK E. WALLIS & SON, ARCHITECTS

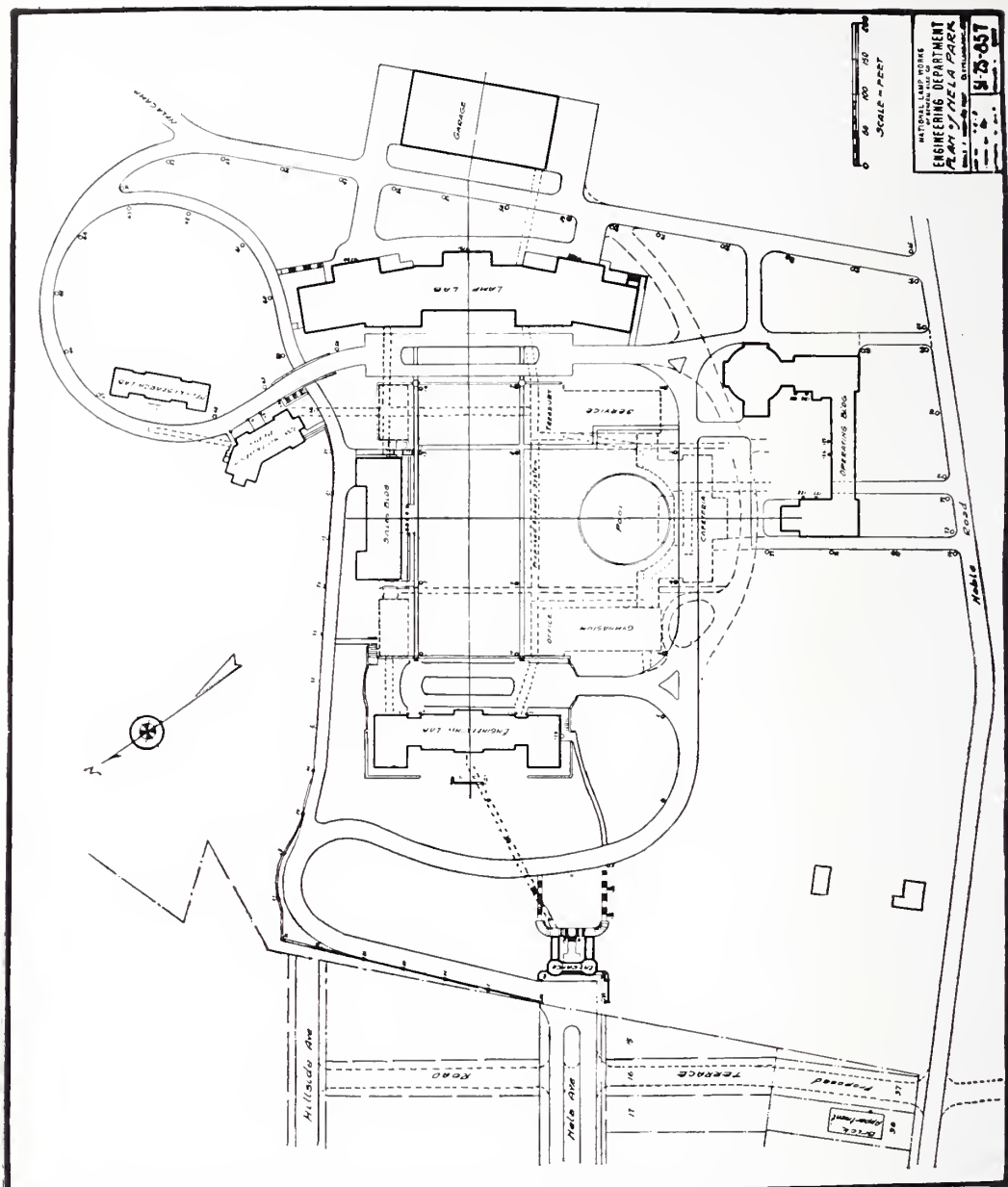
By Maflack Price

THE STORY of Nela Park is not a story of architecture magnificently isolated, of architecture as an end and not as a means. It is a story, rather, of architecture as a means; of architecture utilized in a way not entirely unlike the way in which electricity is used. You do not see electricity: you see only what it does. It makes light, or moves things or gives power to machinery, but itself it sublimates.

The architecture of Nela Park could have been very assertive, even pompous and grandiose, but the more it tended in that direction the less of its real purpose it would have accomplished. In the unique group of buildings of the National Lamp Works of the General Electric Company in Cleveland, Ohio, architecture has played a part far more important than that of piling up pediments, or burgeoning forth consoles and cartouches and various other architectural bric-a-brac, here, there and everywhere—

it has performed the great service of coordinating the scattered parts of a large and ambitious plan, of expressing order and relationship, of effecting unity in place of an architectural Babel.

No very great amount of superficial “style” was needed to accomplish this, for the burden of the work lay in the broader aspects of its plan. The superficial style, the architectural language in which it communicates itself is simple enough—an unpretentious, decent version of the Georgian manner, in brick and stone, a kind of detail on which the most verbose critic would be at a loss to perpetrate six or seven hundred words. He might call upon the ghost of Sir Christopher Wren, and be a little sentimental about Independence Hall, and talk about “our Colonial heritage,” but most of it would be a mosaic of words, designed with more or less skill or pedantry, but little relation to the matter in hand.

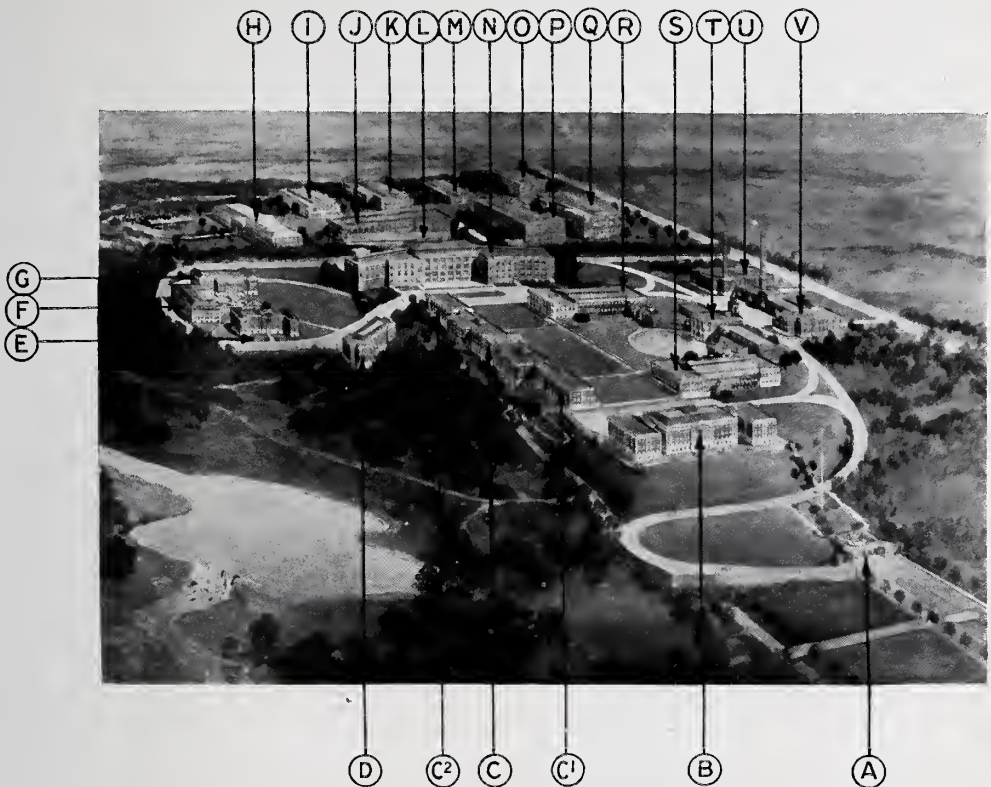


The Architectural Record.

May, 1923

Process Plan.

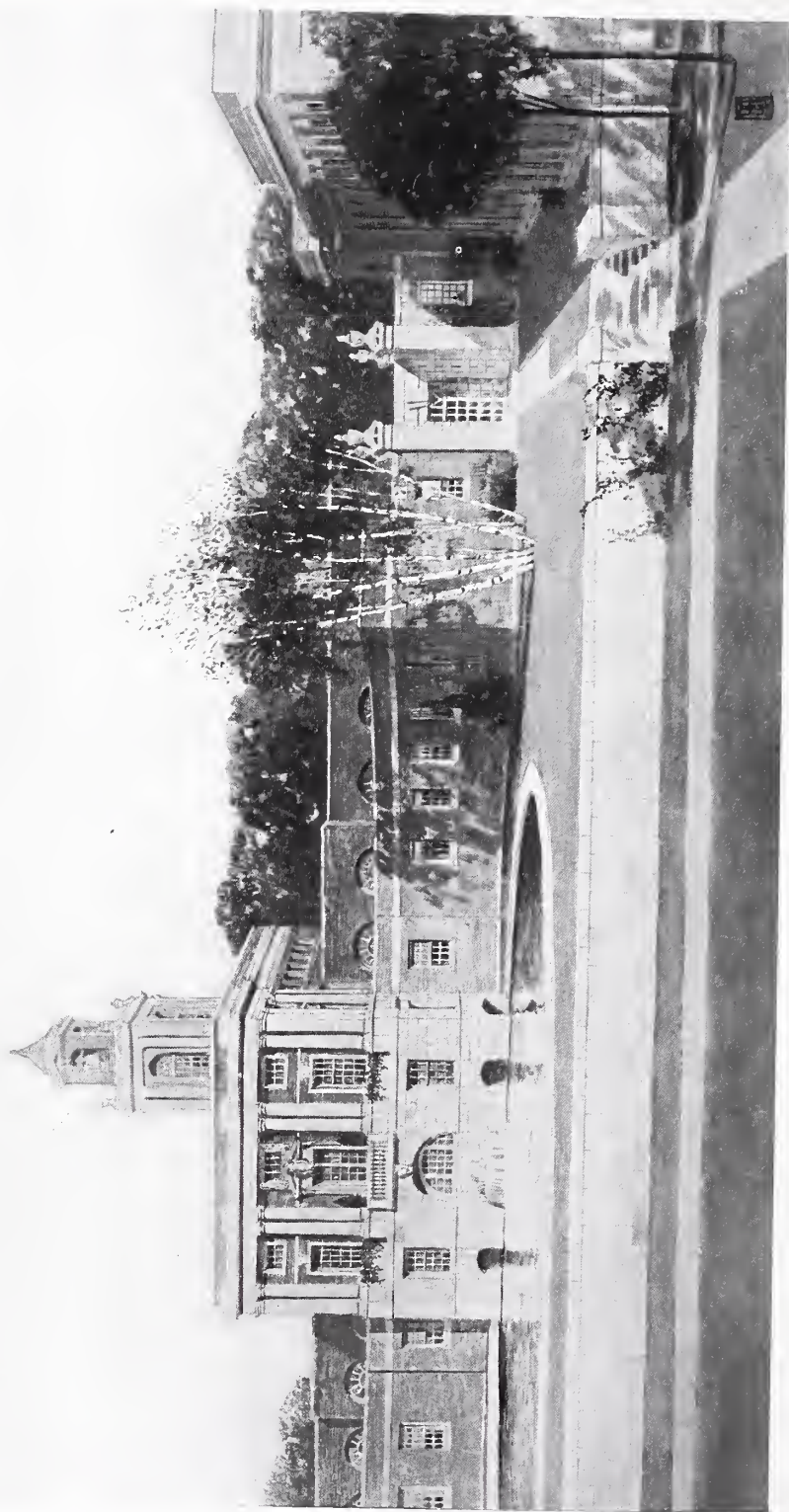
NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.



A—Gate Lodge. B—Engineering Building. C—Sales Building. C¹—Publicity Department. C²—Legal Department. D—Administration Building. E—“Pure” Science. F—Applied Science. G—Science Library. H—Proposed Administration of Factory Group. I—Chemical Laboratory. J—Proposed Lamp Factory. K—Proposed Lamp Factory. L—Garage. M—Machine Shop. N—Experimental Factory. O—Proposed Lamp Factory. P—Proposed Lamp Factory. Q—Lamp Factory. R—Service Wing—Doctor, Dentist, Club Rooms, Employment, Barber, Bowling Alleys, Safe Deposit Vault, Bookkeeping, Treasurer. S—Manufacturing Offices and Auditorium for Business Conferences. T—Cafeteria—Managers’ D. R. (million and half gallons water storage for plant), Bronze group typifying “control of light over darkness,” Bell Tower (Westminster Chimes—making time pass pleasantly). U—Power House. V—Operating Building with official landlord; Telephone, Telegraph, Ground Service. Tent city in the upper left corner for salesmen’s summer camp.

Birdseye View.

NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.



May, 1923

Rendering of Pool Group.
NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.

The Architectural Record.



Pool Group.

NELA PARK, CLEVELAND, OHIO.

Frank E. Wallis & Son, Architects.

It would be true enough to say that the detail of the several buildings is consistent, and an admirably appropriate style for the carrying out of the group, but this would be only a small part of what should be said. I have speculated in these pages, before now, upon what may be the reasons, if any, for the general neglect of this particular kind of Georgian architecture in the design of large buildings. The Curtis Building in Philadelphia is one of the few that can be cited. Certainly Mr. Wallis has utilized the style to good purpose in his designs for the buildings at Nela Park, and if he has given architectural critics little to rhapsodize over in the way of bits which could be called *recherché* or *intime* by the dilettanti, he has also spared people from reading such rhapsodies and has given to Nela Park the stamp of fine, simple straightforwardness. It is a stamp which might well be put upon a great deal of contemporary architecture not designed for industrial purposes. If Nela Park did nothing else, it could stand

as a permanent evidence that industrial office buildings, whether considered singly or in groups, need not be unattractive or unarchitectural. Architecture is a sterner and more practical art than many believe, and its highest towers have foundations in the earth. Certainly one of the most refreshing things about Nela Park is the absence of architectural nonsense in its whole plan and in the individual buildings which go to make it up.

The area occupied by Nela Park is approximately a hundred and fifty acres, and the work of laying it out and building the first buildings was begun in 1911 and carried on until 1917.*

The latest additions were begun in 1919 and have just reached a stage of completion at the present writing. The birds-eye view, with its lettered key, shows three states of Nela Park: the first buildings, the new group, and several buildings contemplated for the future. The new

*The work up to 1914 was illustrated and described in THE ARCHITECTURAL RECORD in its issue of June, 1914.

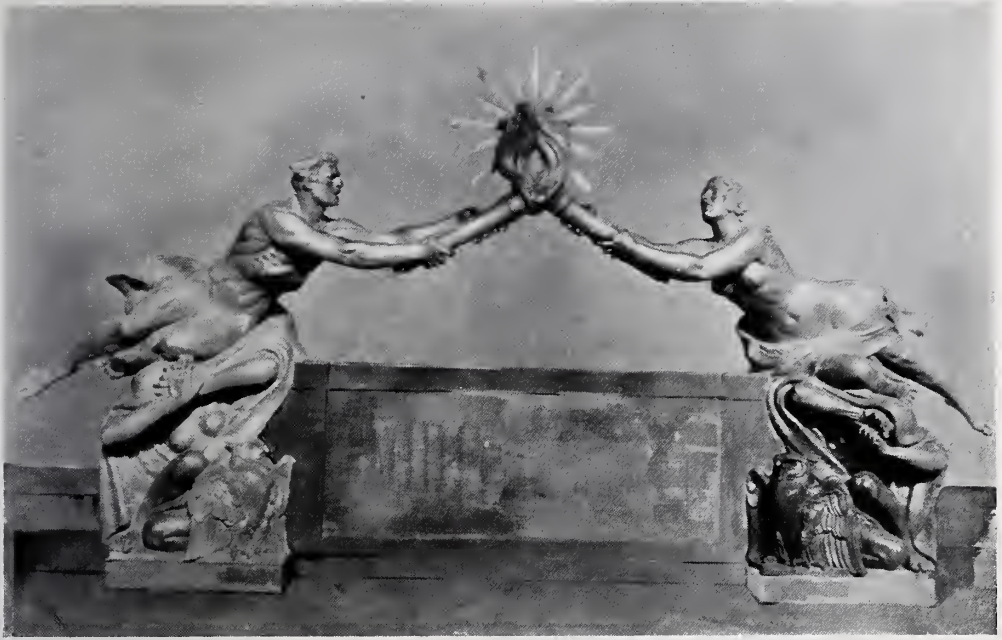


The Architectural Record.

May, 1923

Main Feature in Pool Group.

NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.



Bronze Group.
R. I. Aitken, Sculptor.
NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.

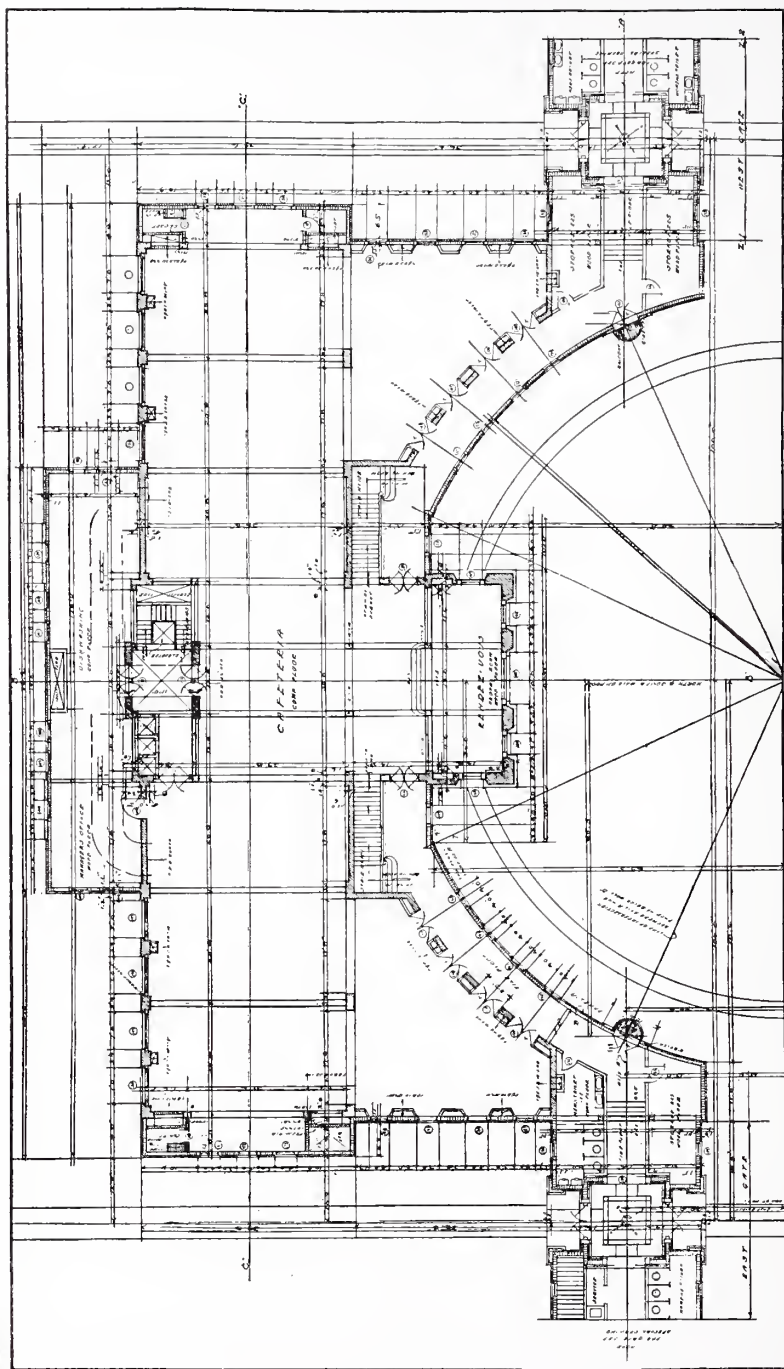
group, considered presently in detail, is called the Pool Group, and is readily located as centering on and partly enveloping a large circular pool.

One very heartening thing about Nela Park, to any architect, is the fact that it represents a high order of vision without being visionary. A large part of it was started and actually built according to plan, and subsequent interruptions did not stop the continuity. They were merely intermissions in a definitely planned program. Part of the vision, then, at once became a reality, another part, just completed, was translated from the "proposed" to the "existing" class, and there is no human reason to suppose that the buildings still marked "proposed" will not in due time assume the tangible form of brick and stone.

Here, then, is a real accomplishment of architecture, and one infinitely greater and more seriously to be reckoned with than architecture which limits its meaning to the fashioning of a console, or the detailing of a doorway. Architecture

conceived the whole group and gave to it a unity and coherence which is now organic. The development of the plan grows of itself, without the need of injections or of artificial respiration. Here is architecture seen and sensed as an entity; not as a row of columns, or a resuscitation of this or that style. Here is architecture animating an organic system, like life in the human body, or current in an electric installation, and in this lies the architect's achievement. Mr. Wallis knows that other architects, given a qualifying measure of ability, can design Christopher Wren belfries and Georgian-Renaissance doorways and façades, but these are only details, and details which he properly gauges in their relationship to the whole scheme. They are the outward guise of an inward unity, and this unity not only created the first plan of Nela Park out of nothing, but held it together in unity through to its present stage of near completion.

Of the vision of the men who control the destinies of Nela Park, and have con-



May, 1923

Plan of Cafeteria.

NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.

The Architectural Record.



Rendering.

NELA PARK, CLEVELAND, OHIO.

Frank E. Wallis & Son, Architects.

trolled them since its inception, a highly inspirational story could be written, and a story typifying the best element of American business, the element of vision. A dream of an ideal industrial environment was made a reality, and this could not have happened in a sporadic or piecemeal manner, or in the nebular realm of mere words. To reach execution it needed a tangible form, articulated, a physical form that could be measured and estimated. And this was given to it by architecture.

A great deal of the proposed plan sees material emergence in the new work on the Pool Group. Here, on a broad terrace, is a great circular basin above which rises the central portion of the Cafeteria Building. The upper portion is occupied by the officers' dining room, while the main cafeteria extends in curved wings right and left. The left side of the terrace is flanked by a long service

building, containing doctors' and dentists' offices and other service departments of the plant, terminating with the stone structure of a bank. The flanking building to balance this along the right side of the terrace will be the head office of the manufacturing section.

There is no ceremonious pomp at Nela Park, none of the spirit of Imperial Rome, for the Administration Building forms no part of this formal Pool Group, nor is it even on the long axis of the whole group ("B" in the keyed birdseye view). This large and importantly located building is the Engineers' Building, and the Administration Building, the headquarters of the master minds of Nela Park, is modestly concealed behind the Sales Building, on a wooded slope (at "D" in the keyed birdseye view).

The formal arrangement of the pool group, with the culminating glory of the



The Architectural Record.

Rendering of Gateway.

May, 1923

NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.

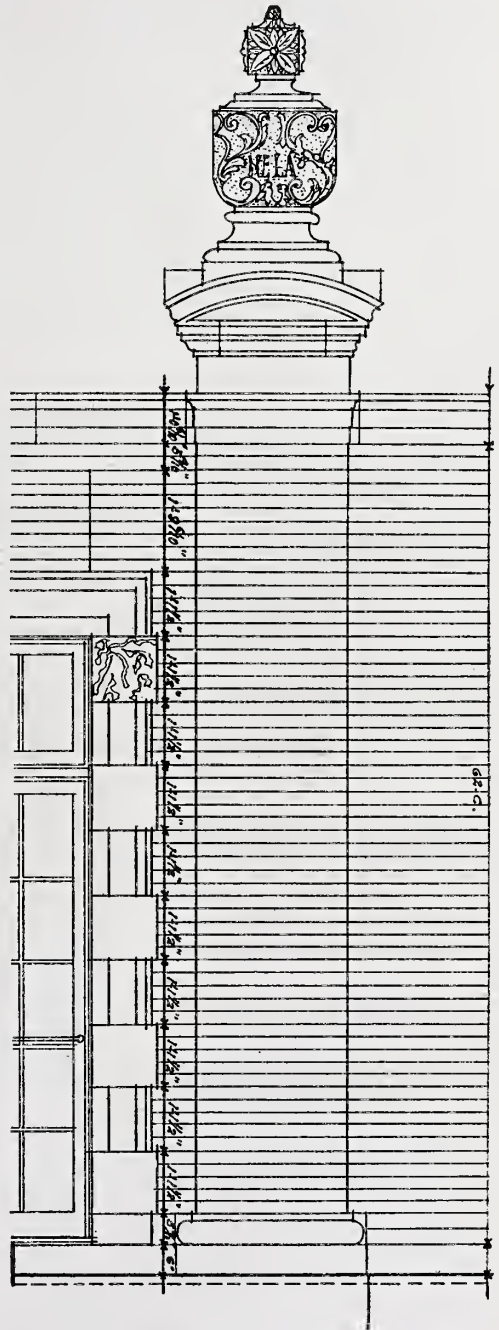
great allegorical figures of bronze on the central block of the Cafeteria Building, might seem to suggest the grandeur of a Beaux Arts problem (which is not meant slightly, either to the École or to the matter in hand), might seem even a little undemocratic, or suggesting the old régime in this otherwise very American Nela Park. What were we saying about an escape from architectonics and architectural theatrics? The circular pool, and all the rest of it, after all, contradict nothing in the spirit of Nela Park. It is only proper and fitting that a group of the extent and importance of this have some pictorial feature, some part of its scheme which is not strictly utilitarian. During the noon hour, the time of eating and a little rest, the workers of Nela are fairly enough entitled to some interlude, and this arrangement of the eating hall is an architectural interlude.

The bronze figures are a part of the interlude, and a symbol of the eternal miracle of electricity. They stir the imagination, and as long as people imagine, they continue to live and to get more than their salaries out of their work. The figures were created by Robert I. Aitken, and represent Light Overcoming Darkness: also, a question in the minds of the creators of the group, "Can intellect overcome stupidity?"

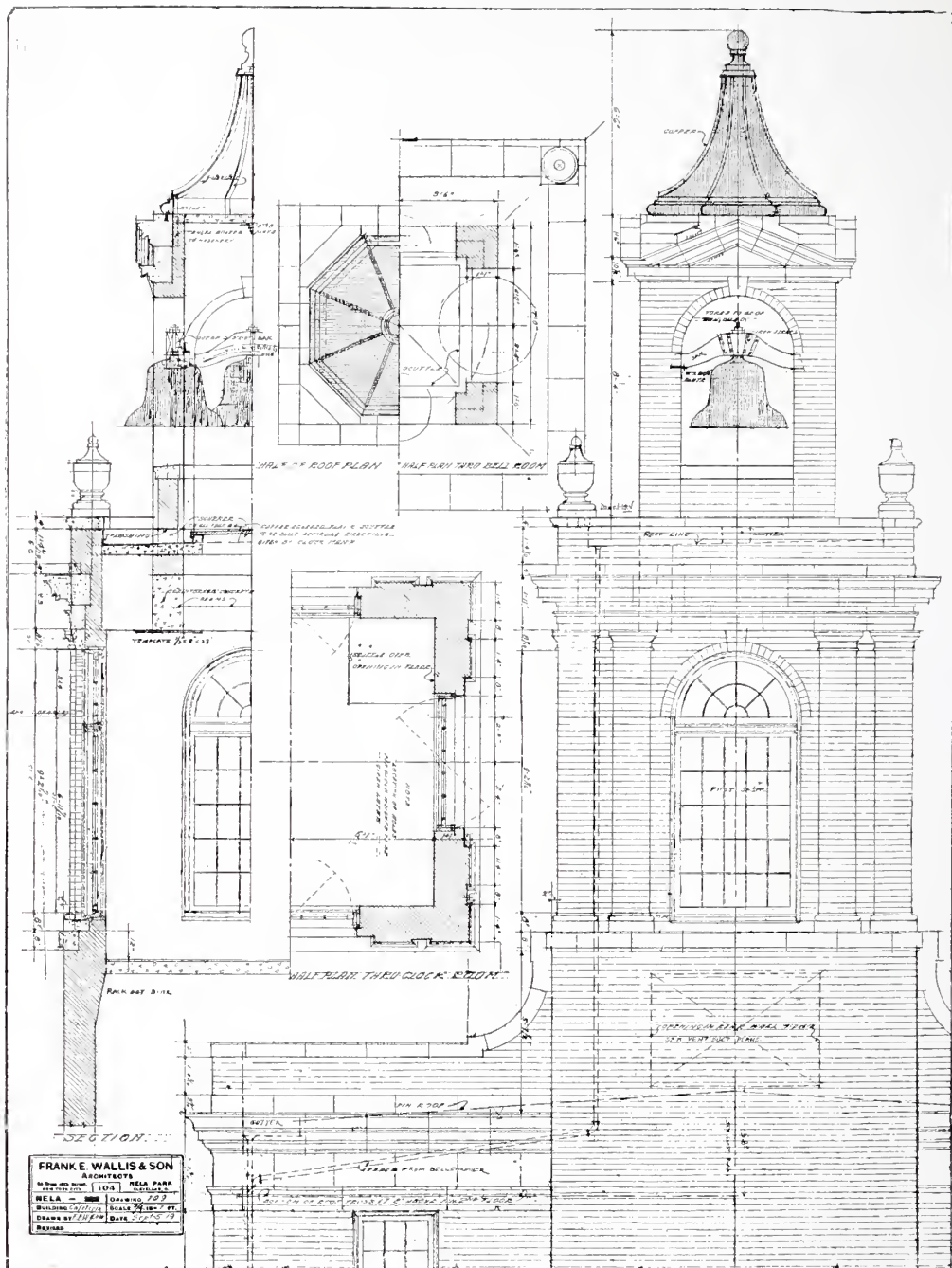
But with these figures, as with such architectural detail as Mr. Wallis has used for the embellishment of the buildings, the character has a very definite purpose and meaning. The embellishments do not make the difference between good straightforward industrial buildings and buildings of inappropriately ornate affectation. They make the difference between unbeautiful and depressing factory buildings and good, straightforward industrial buildings.

For the most part there is very little imagination shown in the design of industrial buildings. Owners, through consistent stressing of the utilitarian over a long period of years, have trained architects to forswear imagination when any industrial buildings is on the board, and consequently architects have not developed the picturesque possibilities of this type.

There are plenty of architecturally attractive solutions for all types of industrial buildings, and in the hands of a skillful



Scale Drawing of Gateway.
NELA PARK, CLEVELAND, OHIO.
Frank E. Wallis & Son, Architects.

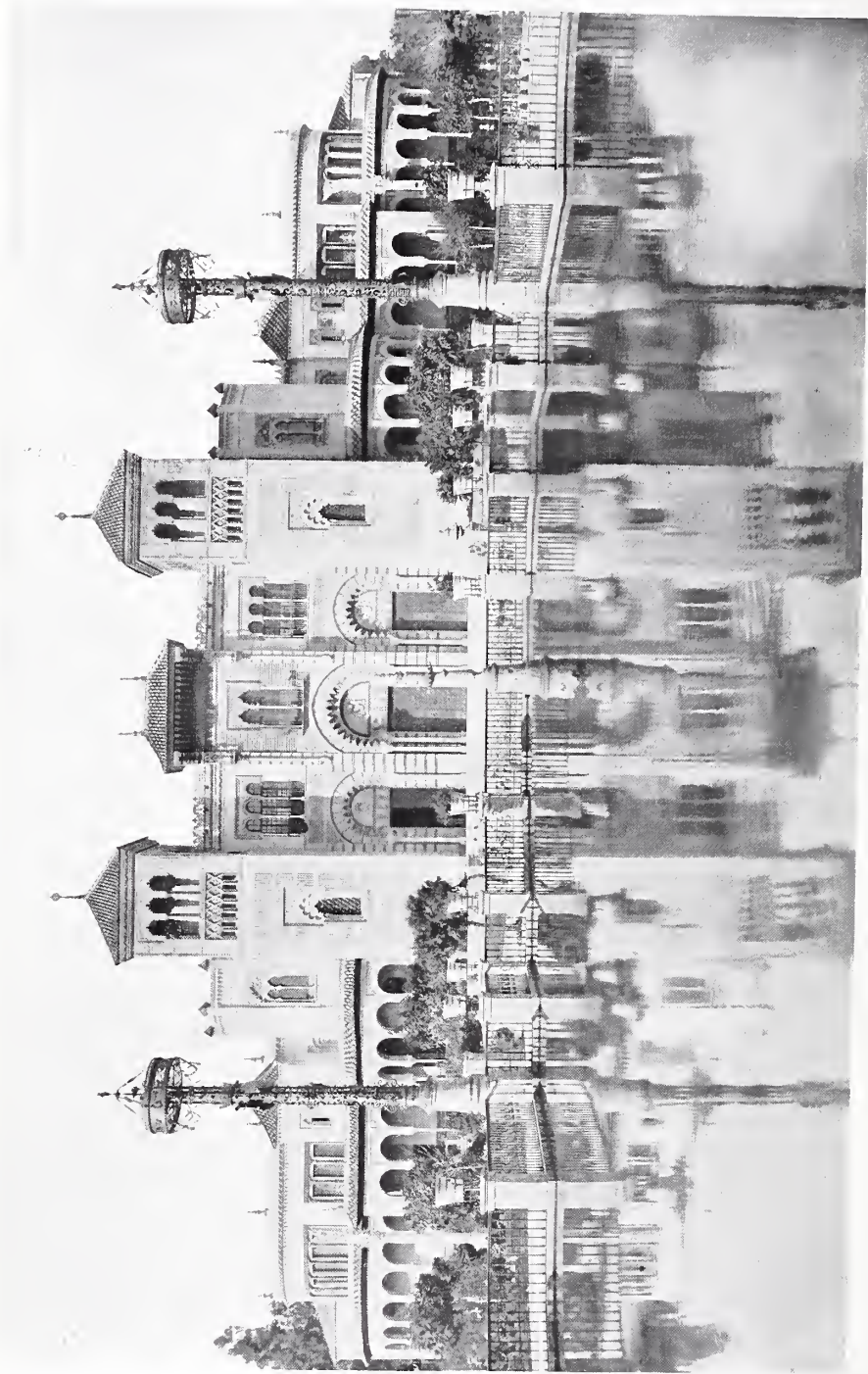


architect the element of the picturesque, or of good design, does not at all modify the practical aspect which is the great fundamental requirement of industry.

Nela Park is a direct solution as well as an expression of its problem, and deserves critical commentary of the same kind.

The critic can only hope to feel that he has done as good a job as the architect, in avoiding, for his part, the usual convention of surrounding his subject with a filigree of ornate wordage which would ill describe it and little convey its real architectural meaning and intention.





The Architectural Record.

Palace of Ancient Arts,

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.

May, 1923

The IBERIAN-AMERICAN EXPOSITION TO BE HELD IN SEVILLE, SPAIN, 1925-1926



By Eloise Olmsted

THE FOURTH centenary of the first voyage around the globe, by Hernando de Magallanes, who sailed from Seville, Spain, October 21, 1521, was to have been celebrated by the opening, October 21, 1921, of a great Iberian-American exposition at Seville. However, although the buildings had been erected, it was found necessary to postpone the exposition, originally because of industrial conditions, and more recently because of delay by Congress in accepting Spain's invitation to the United States to participate.

It was the intention at first, to invite only Spanish-American countries, but owing to Spain's historic role in the discovery, exploration and opening up of many of our States in the South and Southwest, national sentiment expressed itself in favor of extending the invitation to the United States. This sentiment was strengthened by the desire of men of affairs to foster American industries in Spain. The exposition, it was thought, might be made to promote coöperation between capitalists of the two nations in developing the natural resources of the country.

As an aid to this end, in connection with the exposition, Spain is considering the advisability of offering entire possession, free of taxes for a number of years, of an island lying in the river near Seville, to some American syndicate desirous of erecting a distributing plant there for American commodities, and at the same time building a species of winter resort, the climate being extremely favorable, particularly during the winter months in the States.

Portugal, the Mother of Navigators, in

consequence of its important share in the early history of the Iberian peninsular, has also been invited to take an active part in the exposition.

The present, enlarged purpose of the exposition is to represent the primitive industries of the Goths, Phoenicians, Moors, Romans and Celtic-Iberians during their occupation of Spain and Portugal, together with the arts and crafts and industries of all countries having a racial or historic connection with Spain and Portugal. This, of course, includes the United States.

At the present time a convention of merchants from all over the Spanish-speaking world is deciding upon the final details of the forthcoming exposition.

The very beautiful exposition buildings are reminiscent of the Moorish occupation of Southern Spain and Portugal. They are permanent constructions, and it is planned to use some of them eventually for a Spanish-American university, and others for art galleries, a commercial museum, etc. It is also the intention to establish a society to hold meetings on the order of the Pan-American conferences formerly held in this country, Seville to be the headquarters and the exposition buildings the meeting place.

The luxuriant vegetation, the gardens with broad walks and shaded resting places, the streams, fountains and pools, as shown in the accompanying illustrations, form an ideal setting for this splendid group of buildings and a colorful outdoor theatre for the staging of field sports, aviation meets, bull fights, horse races, military cavalcades and sham battles.

In the Palace of Ancient Arts will be



The Architectural Record.

Plaza of America.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.

May, 1923



The Architectural Record.

Palace of Fine Arts.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.

May, 1923



The Architectural Record.

Royal Pavilion.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.

May, 1923



May, 1923

The Architectural Record.

Cervantes Circle.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.



The Architectural Record.

Fountain of the Frogs.
IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.
Antbal Gonzalez Alvarez-Ossorio, Architect.

May, 1923



The Architectural Record.

Sun Dial.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.

May, 1923



The Architectural Record.

Duck Pond.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Aníbal González Álvarez-Ossorio, Architect.

May, 1923



The Architectural Record.

Park of Maria Louisa.

IBERIAN-AMERICAN EXPOSITION, SEVILLE, SPAIN.
1925-1926.

Anibal Gonzalez Alvarez-Ossorio, Architect.

May, 1923

housed the ancient Iberian-American arts—paintings, sculpture, tapestries, furniture, textiles, metals and coins, goldsmith work, wood carving, wrought iron, and glassware; also engravings and photographs of ancient monumental architecture. The International Salon will contain modern Iberian-American paintings, sculpture and architecture.

The history of Seville—Romance, Visigoth, Mussulman, Hebraic and Christian—will be portrayed in episodes of street life and the bazaars, in historic events and festivals, in effigies of famous women, saints, philosophers, writers, poets, and in houses and furnishings. The history of Spain is to be told in the same way,

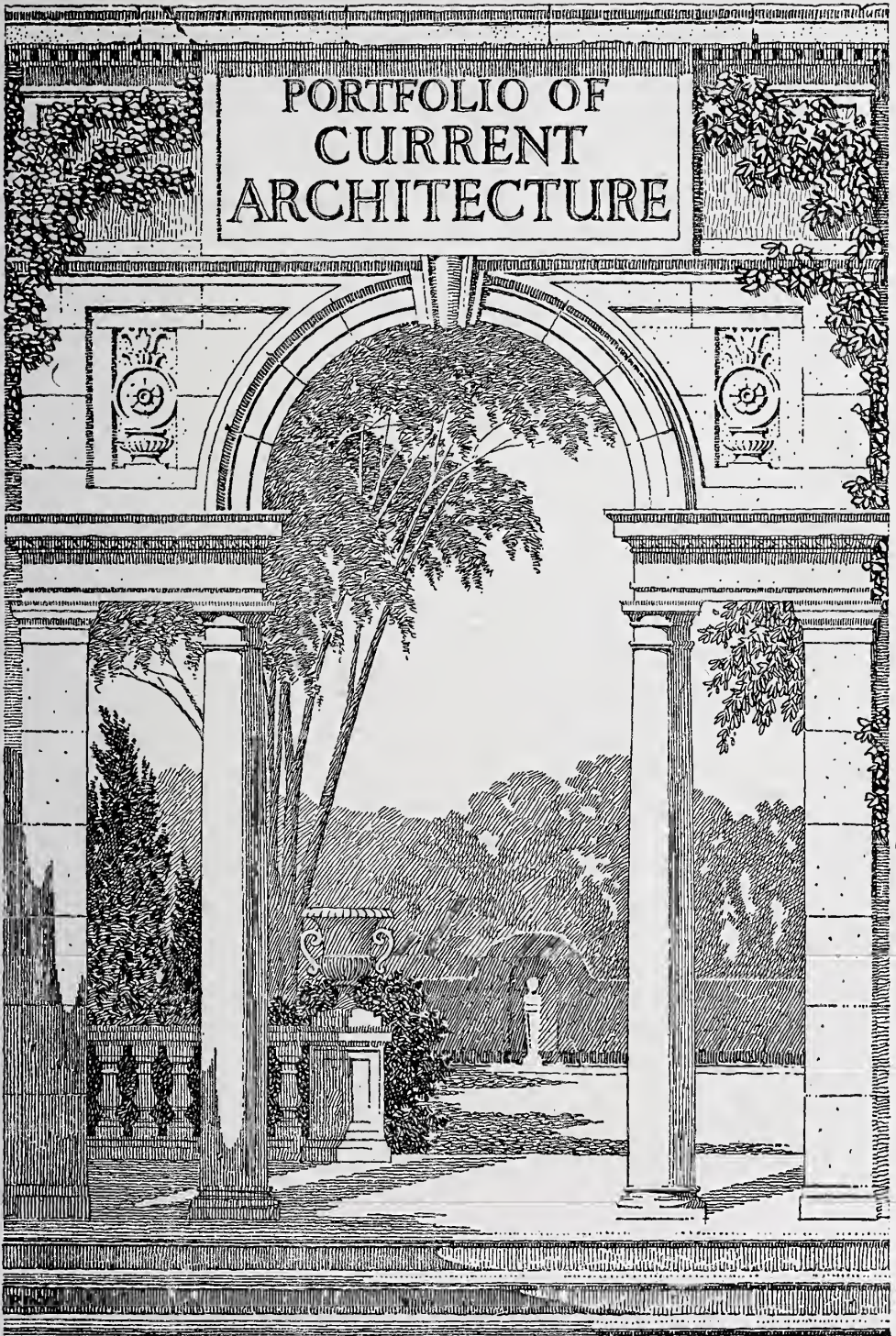
together with its wonderful story of navigation, including the voyage of de Magallanes around the globe.

The part which the United States is to take has not, of course, been decided but it is intended to have an industrial exhibition of raw materials and samples of all kinds, automobiles, machinery, electrical devices, and the like.

There will be tours and excursions by land and water to all parts of Spain.

Such are the plans of this enthusiastic nation, a combining of the Iberian and American arts, ancient and modern, colossal plans involving details of Spanish life through the centuries, linking the old and the new on a scale never yet attempted.







The Architectural Record.

May, 1923

End Detail.

ILLINOIS LIFE INSURANCE BUILDING, CHICAGO, ILL.
Holabird and Roche, Architects.



The Architectural Record.

May, 1923

Entrance Detail.

ILLINOIS LIFE INSURANCE BUILDING, CHICAGO, ILL.
Holabird and Roche, Architects.

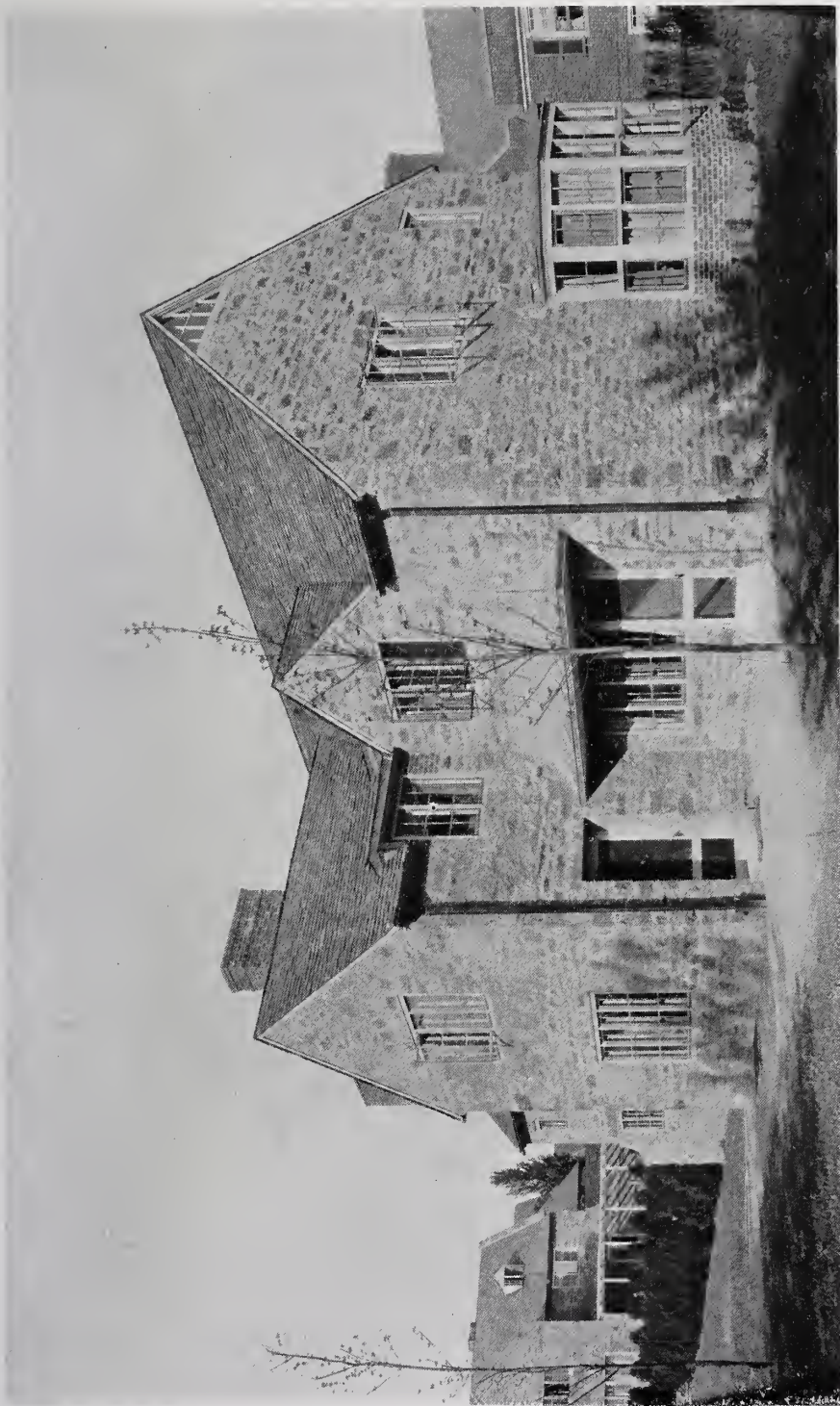


The Architectural Record.

Façade.

ILLINOIS LIFE INSURANCE BUILDING CHICAGO, ILL.
Holabird and Roche, Architects.

May, 1923



The Architectural Record.

North and West Fronts.

HOUSE ON LINCOLN DRIVE, ST. MARTINS, PHILADELPHIA.
Edmund B. Gilchrist, Architect.

May, 1923



The Architectural Record.

May, 1923

West and South Fronts.

HOUSE ON LINCOLN DRIVE, ST. MARTINS, PHILADELPHIA.
Edmund B. Gilchrist, Architect.



The Architectural Record.

May, 1923

House Door and Service Wing.

HOUSE ON CREFELDT STREET, ST. MARTINS, PHILADELPHIA.
Edmund B. Gilchrist, Architect.



The Architectural Record.

Street Fronts.

HOUSES ON CREFELDT STREET, ST. MARTINS, PHILADELPHIA.
Edmund B. Gilchrist, Architect.

May, 1923



The Architectural Record.

West Fronts and Gardens.

HOUSES ON CREPeldT STREET, ST. MARTINS, PHILADELPHIA.
Edmund B. Gilchrist, Architect.

May, 1923



The Architectural Record.

BON AIR VANDERBILT, AUGUSTA, GEORGIA.
McKim, Mead and White, Architects.

May, 1923



The Architectural Record.

May, 1923

BON AIR VANDERBILT, AUGUSTA, GEORGIA.

McKim, Mead and White, Architects.



The Architectural Record.

May, 1923

Detail of Solarium and Central Tower.

BON AIR VANDERBILT, AUGUSTA, GEORGIA.
McKim, Mead and White, Architects.



The Architectural Record.

May, 1923

Detail of Lobby.

BON AIR VANDERBILT, AUGUSTA, GEORGIA.
McKim, Mead and White, Architects.



The Architectural Record.

Façade.

RESIDENCE OF H. C. OPPENHEIMER, CRESTWOOD, N. Y.
Herbert Lippmann, Architect.

May, 1923

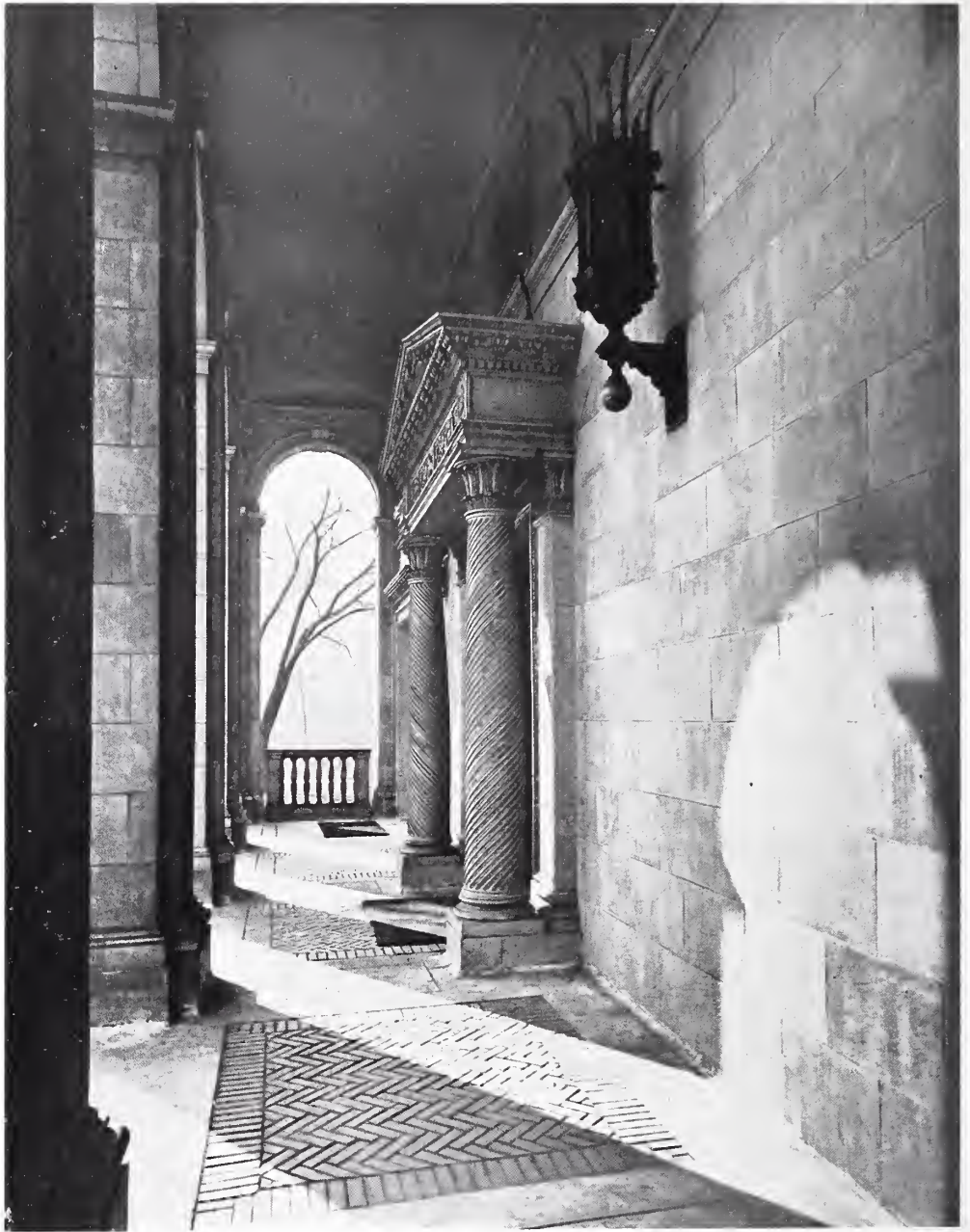


The Architectural Record.

May, 1923

Dining Terrace.

RESIDENCE OF H. C. OPPENHEIMER, CRESTWOOD, N. Y.
Herbert Lippmann, Architect.



The Architectural Record.

May, 1923

Loggia

ST. MARY OF THE LAKE, CHICAGO, ILLINOIS.
Henry J. Schlacks, Architect.

SOME NOTES ON COMMON BRICK WORK FROM ITALY



Sketches by Louis C. Rosenberg
Text by Lewis E. Welsh

PART I

OF ALL THE manufactured building materials brick has undoubtedly had the widest range and most general use. From the sun-dried brick of Asia and Africa to the fire-burned brick of the northern countries, we find its use throughout many centuries. This is due, no doubt, to its adaptability to varying requirements, its ease and cheapness of manufacture and its permanence. Very little of the sun-dried brick has left us much precedent for study and the Roman brickwork is really the earliest having any great interest except to the archaeologist.

In Roman work we find that bricks were mainly used structurally, as vault ribs with concrete, as arch material alone, and as vertical walls enclosing concrete. The "opus testaceum" of the Roman work consisted of triangular shaped bricks, laid with broken joints in the concrete walls. At regular intervals bonding courses were run through. Even in the "opus reticulatum" of the Roman work, which was a method of vertical wall construction in which square peg shaped pieces of tufa were used to finish the exposed portions of the concrete, we find brick quoins at the corners. Compared with the Roman use of brick as a structural material, it is doubtful if any such scale has since been obtained, unless it is in the steel construction of the present day.

The Roman builders found another important use for bricks, and that was in their pavements. These are still to be seen in some of the tombs along the Via Latina in Rome, where the bricks were laid in a herringbone pattern with the edges showing.

To the student of architectural details, the brick work of the Romanesque and Byzantine periods of Italian development is of the greatest interest, for it is in these periods that we find the best preserved examples and the most rapid progress in the use of brick as a decorative material.

The Byzantine builders were greatly influenced in their brick design by the Roman vault construction, and they developed it further in the dome. Concrete was often used with it, but the brick remained the exterior covering. Sir Banister Fletcher in his "History of Architecture," makes the following comment on brickwork of this period:

"Brickwork, moreover, lent itself externally to decorative caprices in patterns and banding, and internally it was suitable for covering with marble, mosaic, and fresco decoration. The Byzantines therefore took great pains in the manufacture of bricks, which were employed alike in military, ecclesiastical, and domestic architecture. The ordinary bricks were like the Roman, about an inch and a half in depth, and were laid on thick beds of mortar. This general use of brickwork necessitated special care in making mortar, which was composed of lime and sand with crushed pottery, tiles, or bricks, and most of it remains as hard as that in the best buildings of Rome, while the core of the wall was sometimes of concrete as in the Roman period. The decorative character of external façades depended largely on the arrangement of the facing bricks, which were not always laid horizontally, but sometimes obliquely, sometimes in the form of the meander fret, sometimes in the chevron or herring-

bone pattern, and in many other similar designs, giving great variety to the façades. An attempt was also made to ornament the rough brick exteriors by the use of stone bands and decorative arches."

During the tenth, eleventh and twelfth centuries, were built many fine churches and campanili and as brick was the most available material, especially for the latter, it is only natural that such a splendid and sympathetic understanding of the possibilities of brick design should have resulted. The campanili, in addition to their connection with the religious life, were generally the outstanding civic monuments of the community and so were carefully planned and beautifully executed. In them we find many interesting and novel combinations of materials, delightfully designed cornices, belt courses, arcades, arches, and colonnettes.

It is apparent in the design of these features that many contributing factors must have been studied, such as the use of other materials—marble, stone, stucco, terra cotta and tile. The effect of these relationships seems to have had a great deal to do with the interest and charm of the completed design. Undoubtedly the orientation of the various buildings was carefully considered, for we find many cornices, blind arcades, and belt courses in which flat stucco surfaces receive shadows that take the place of ornamental work; this is also true in the reveals of arches, as in the apse of the Church of San Giovanni e Paolo in Rome. Another feature which seems quite common was the carving or molding of bricks around windows and doors and in cornices. That its value was well known to the designers of this period is indicated by the accompanying drawings. Lack of building stone or local marble quarries or the inability to carve long stone or marble moldings, caused this type of brick to be produced in great quantities, shown particularly by its general use around Verona, Milan and Bologna. In the latter vicinity these bricks were left unglazed so that they are quite distinct from the more common terra cotta.

The joints were struck smooth and

seem to vary in the same building but average about five eighths of an inch. Almost no attempt to color the joints is found except as some came out a little warmer than others, due to natural color in sand, cement or foreign matter. The general color scheme was red, in varying shades, with grey or white joints.

Regarding the actual manufacture of the brick, the composition seems to have varied greatly a few miles apart, due to the raw material and also to the racial characteristics of the people. At that time, intercourse between neighboring towns (except, of course, in the way of battle) was very rare, and widely different usages sprang up in the same vicinity. While all the cities tried to outstrip each other in the types of buildings, this desire also led them to experiment with various sizes, shapes and finishes of building materials. As far as brick itself was concerned, we may feel reasonably sure that all bricks were molded by hand and were burned, because of the uneven surfaces and varying colors which could have only been procured by this method. In the northern portions of Italy where fuel was plentiful, the bricks were darker and burned harder than in other parts where fuel was not so easily obtained. Very often the early bricks were scratched in a zigzag line on at least one side, and while this was at first intended only to provide a better bond with the mortar, it afterwards developed into a form of surface decoration, the markings forming patterns as well as the bricks and joints themselves.

One of the most typical Italian uses of brick, in both old and modern work, is the *louvre* panel found in their farm buildings. In these panels the bricks were laid up with openings to admit air and light and in some places the bricks were turned in opposite directions in alternating rows in order to get any breeze that might be blowing. Many variations of design were made and generally the area of these panels did not exceed eighty square feet without a pier.

The value of measured drawings of old work to the student of architecture needs no comment, but that there is a

difficulty in helpfully presenting such drawings is too often overlooked. The stumbling block lies in the coldness and isolation of most printed matter—the feeling of the original vanishes and it is almost impossible to recover it. Probably every important piece of architecture in the world has been measured, drawn and published in at least one book, so that a student may become conversant and minutely familiar with these monuments without ever having seen them. To those who have been fortunate enough to actually see the same buildings, an entirely different feeling comes, for they appear as things of form and substance and not

as engravings or relevé only.

The following plates are taken from Mr. Rosenberg's sketch book and have not been worked over since they were made. They are presented as notes and as such it is thought that perhaps they may transmit to the student the feeling of the originals more readily than more worked over drawings. When Mr. Rosenberg made these drawings he did not attempt to measure or sketch the finest or most magnificent examples; on the contrary, these details represent the most ordinary work and show the great care given the design of brick details even in the minor buildings.



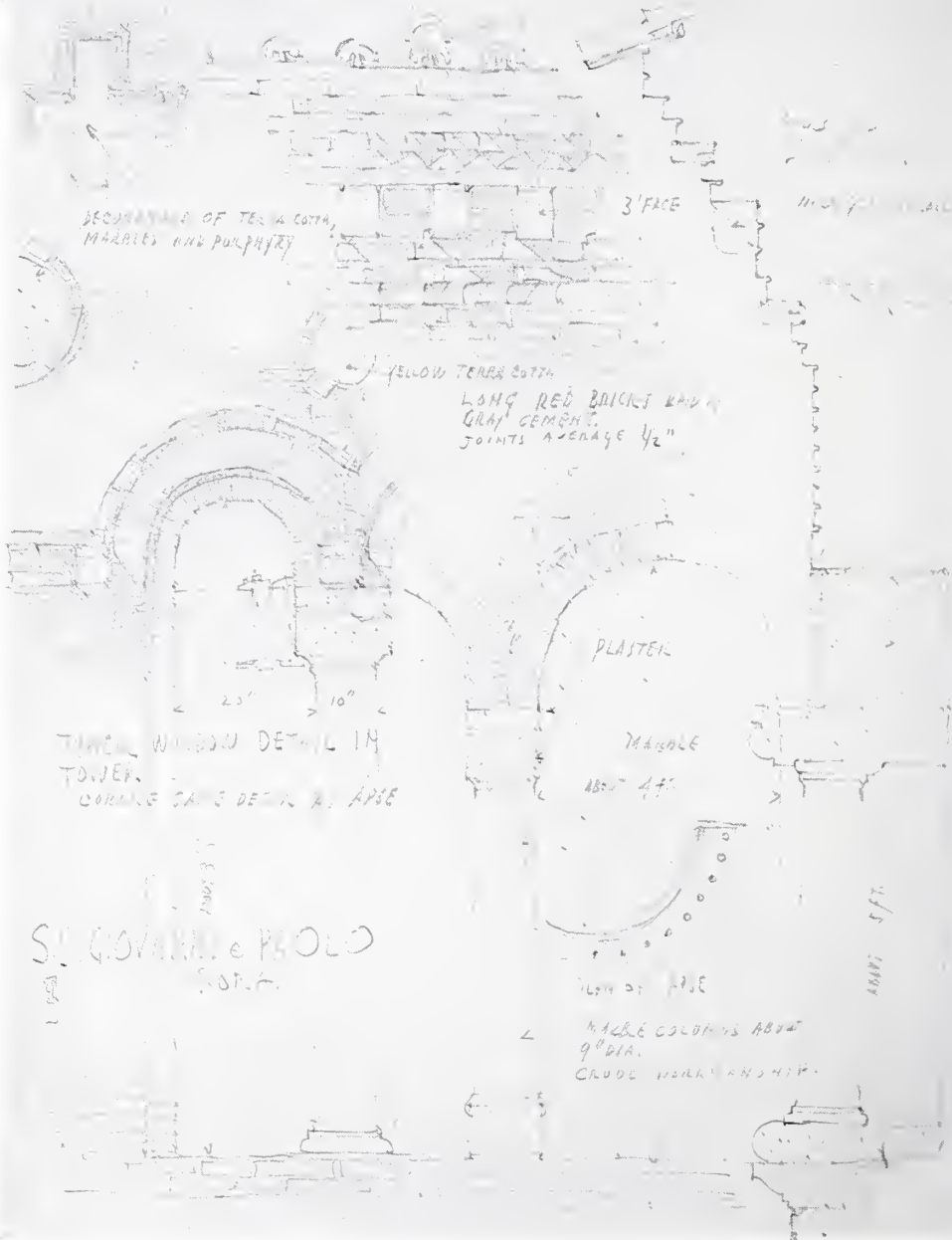


Plate I—Shows the cornices and blind arcade of the apse and details of the tower of the church of San Giovanni e Paolo in Rome. Attention is called to the variety of materials used in connection with the brick and the interesting shaping of the projecting bricks in the apse cornice.

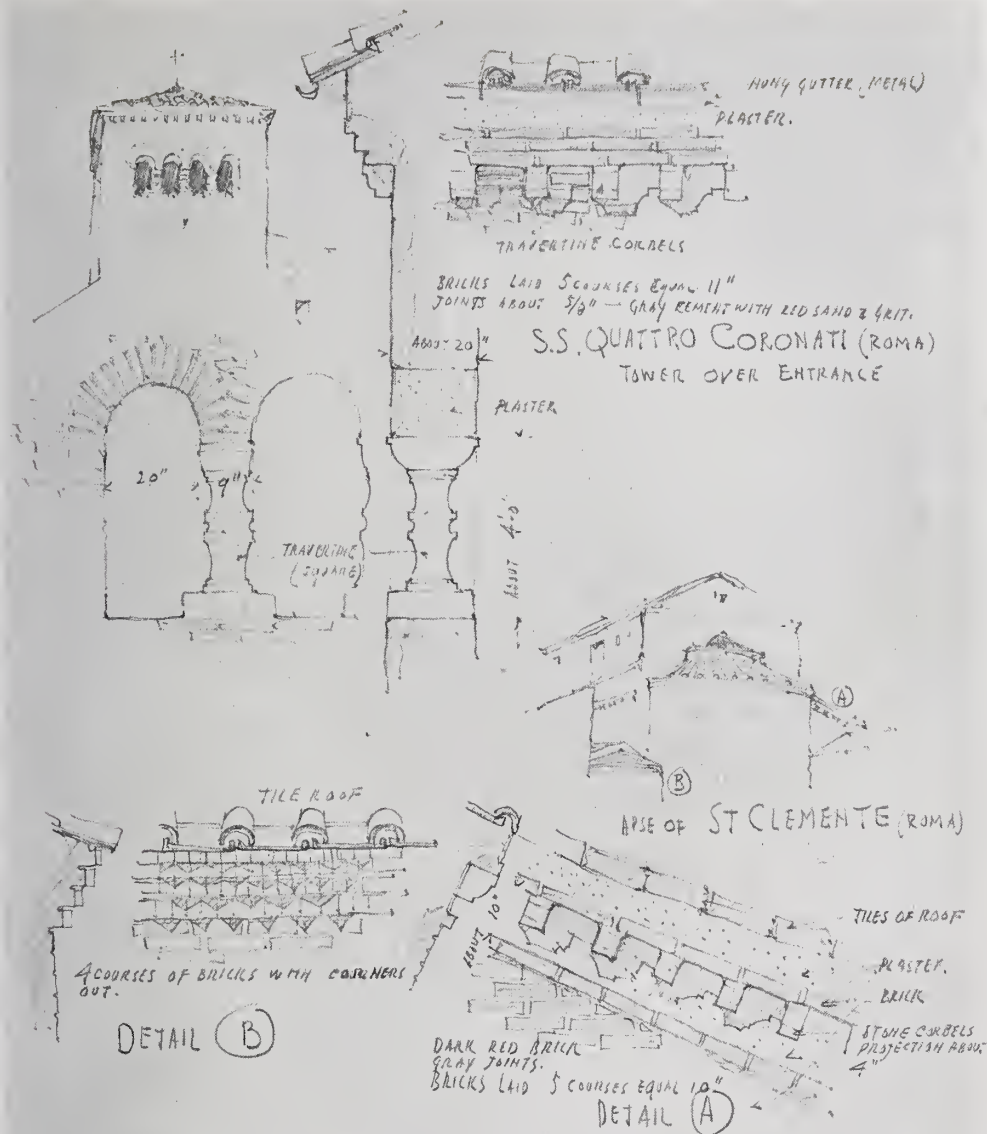


Plate II—Shows the use of a plain band of plaster directly under the tiles and acting as the top member of the cornice of the tower of the church of SS. Quattro Coronati in Rome. This church is of the 11th century. In detail "A" of the church of St. Clements, the bricks form the minor portion of the cornice, the lower band of plaster only receiving the shadow. Detail "B" is a very simple cornice on another portion of the same building, consisting of projecting bricks set at 45 degrees from wall.

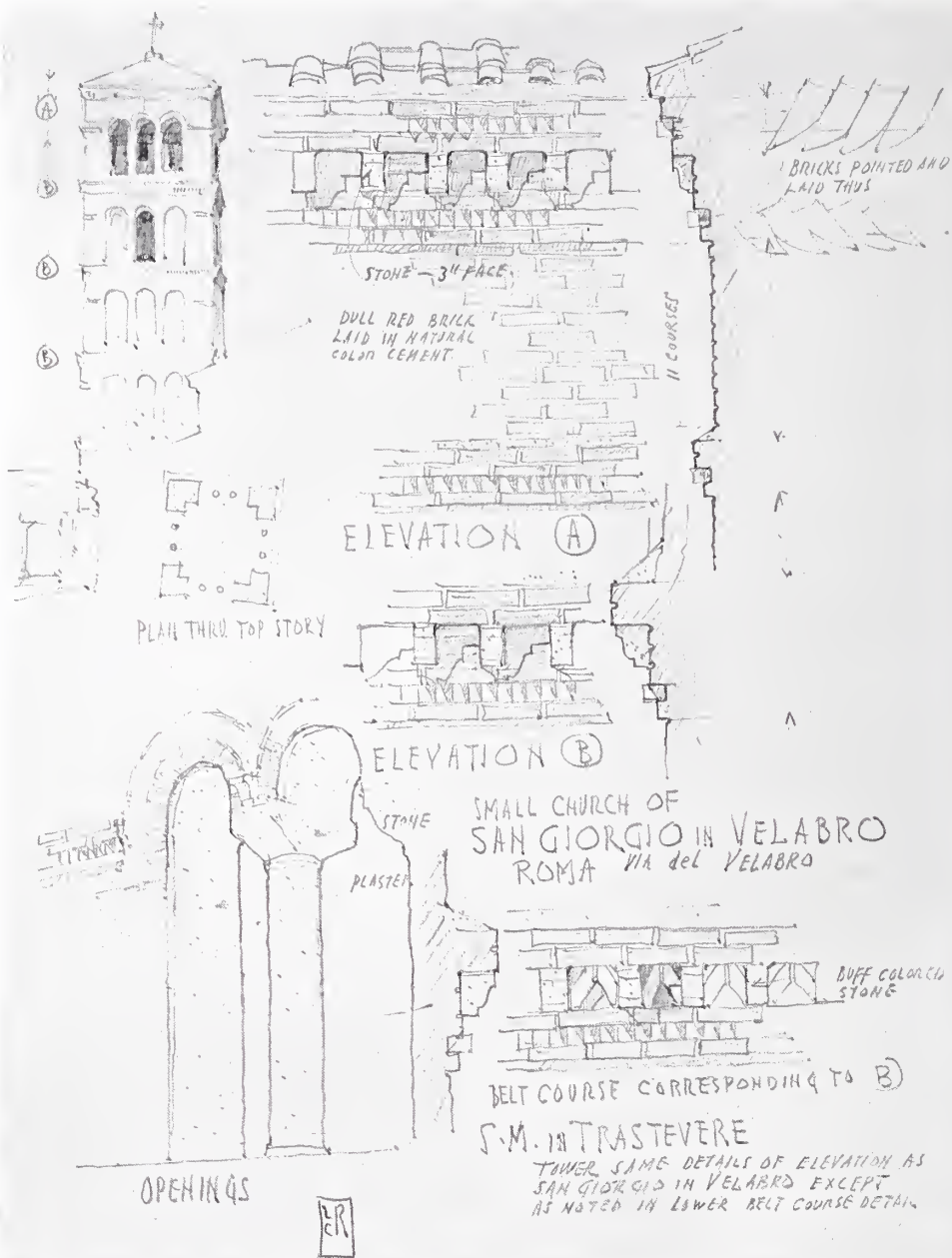


Plate III—Two of Rome's many fine brick towers are shown here. The plaster reveals in the open arches add a crispness to the surfaces that receive the shadows. The towers of these two churches were built in the 12th century and their similarity is indicated in this plate.

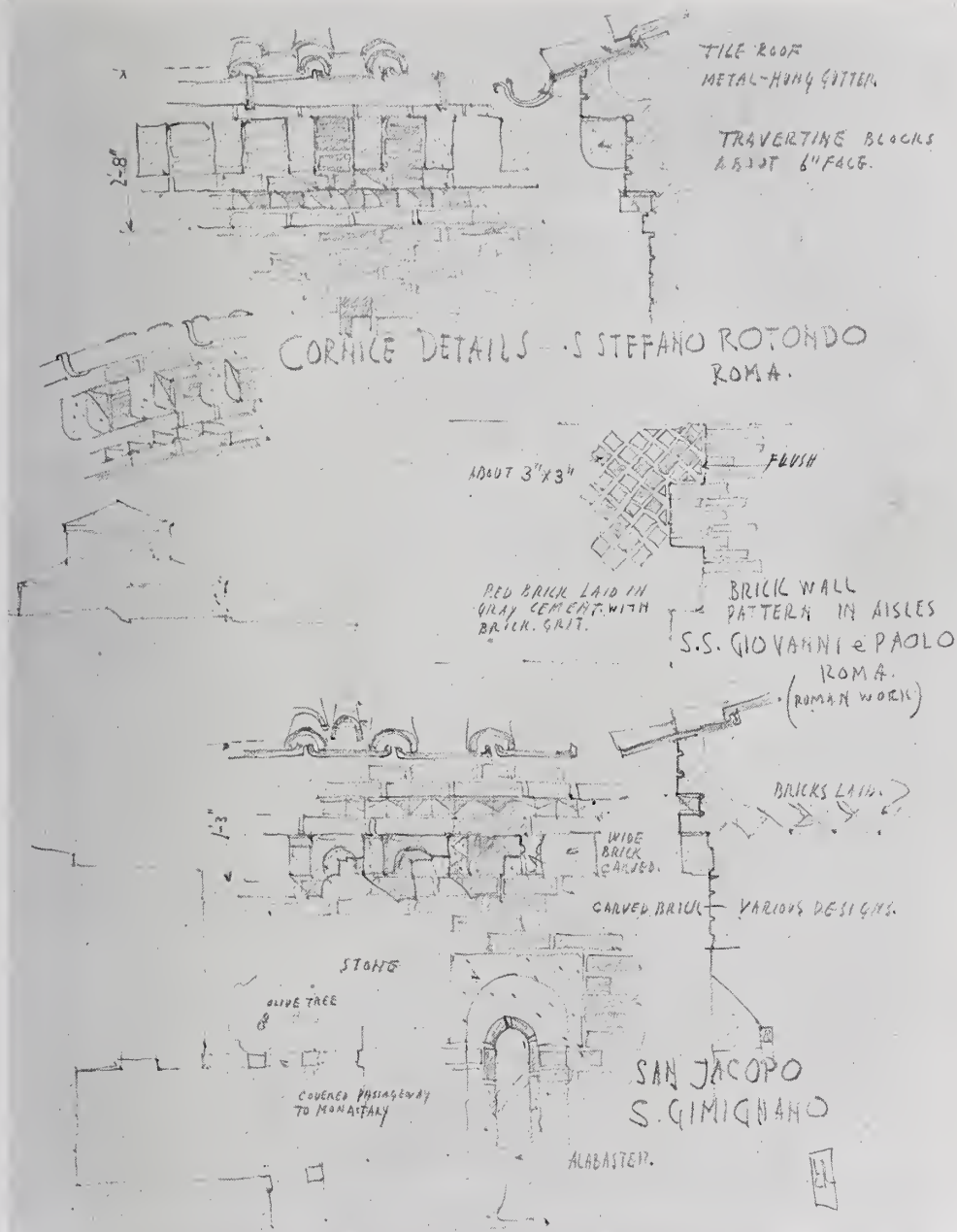


Plate IV—An extremely interesting brick and stone cornice on a round building is that on San Stefano Rotondo in Rome. None but the ordinary sized bricks were used. The church of San Jacopo at San Gimignano, built in the 12th century, has a cornice of brick with carved brick corbels and separating pieces. The designs of these carved bricks varied and followed no set system. The wall surface of SS. Giovanni e Paolo shows the use of old Roman wall in the latter building.

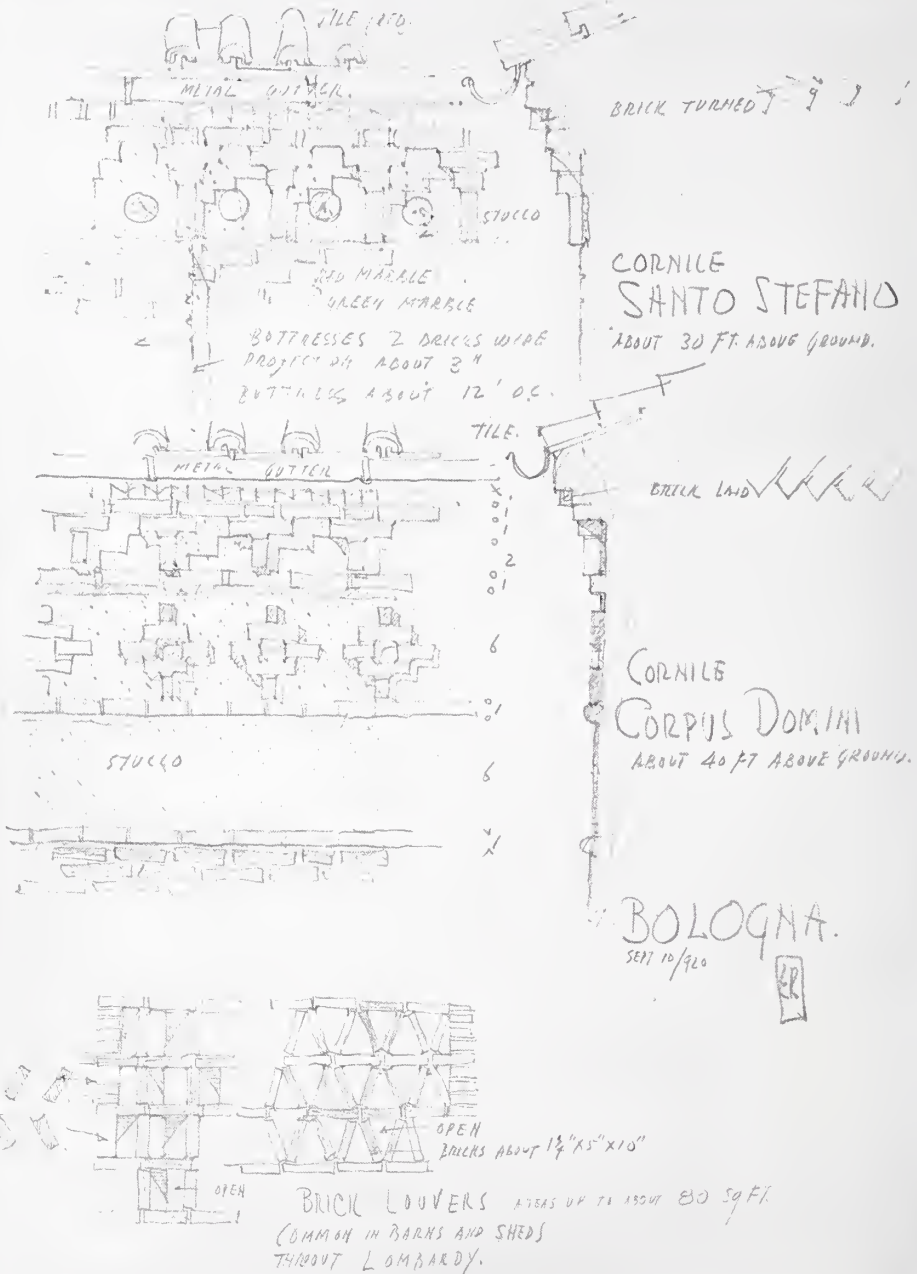


Plate V—The two examples shown on this plate indicate the great difference between the brick work around Rome and around Bologna. In the geometric pattern the designs seem to follow the square rather than the circle. Stucco forms a large part of the surface, with the brick as ornament. Two common types of louvers in brick show the simplicity of the construction of these panels.

La Lanterne, Versailles *Seine-et-Oise*

by

*Harold Donaldson Eberlein
& Leigh Hill French, Jr.*

LA LANTERNE lies facing the south, on the southern edge of the Park of Versailles, and is just beyond the Menagerie on the road leading to Saint Cyr.

Its exposure makes the forecourt a veritable sun-trap and the architecture of the house, appropriately enough, is an embodiment of the sunniest phase of eighteenth century French domestic style.

One of the characteristics of La Lanterne that most forcibly strikes the visitor is its satisfying finality. It is gentle and urbane in aspect so that it wholly accords with a setting of exceptional suavity. One instinctively feels that the architect who planned the house was keenly sensitive to all the values in the environment of his composition—values previously created in large measure by man's artifice, but created with consummate skill. The house and its sundry dependencies constitute a group self-contained and complete in every respect and absolutely free of any distracting irrelevancies. Conception and execution alike are instinct with a latent virility, polished and restrained but strong in studied simplicity. The establishment is a perfect reflection of the polite and courtly manner of life for the accommodation of which

it was devised, and it has preserved this quality unchanged since the latter half of the eighteenth century.

On entering the forecourt one faces the central pavilion which contains the master's apartments. The long eastern wing, to the right, contains the coach-house, the stables, the cow-house and dairy and, at the end adjoining the central pavilion, the scullery and kitchens. The western wing, to the left, accommodates the servants, at the southern end, while the portion nearest the central pavilion has a great living-room with guest bedrooms above it. The north front opens upon the old parterre—now converted into lawns but retaining the old path divisions—and the park with its ancient trees and shaded walks.

All the buildings and walls are constructed of the native cream-coloured limestone, a material most kindly for the execution of the moulding, quoins and sculpture. The wrought iron guards at the upper windows are of exceeding beauty and delicacy of design. The woodwork in the rooms on the ground floor is painted a dull yellow. The paneling details are simple but full of interest and dignity.



The Architectural Record.

Entrance Driveway.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

May, 1923



The Architectural Record.

South Front.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

May, 1923



The Architectural Record.

South Front and West Wing.
LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

May, 1923



The Architectural Record.

North Front.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

May, 1923

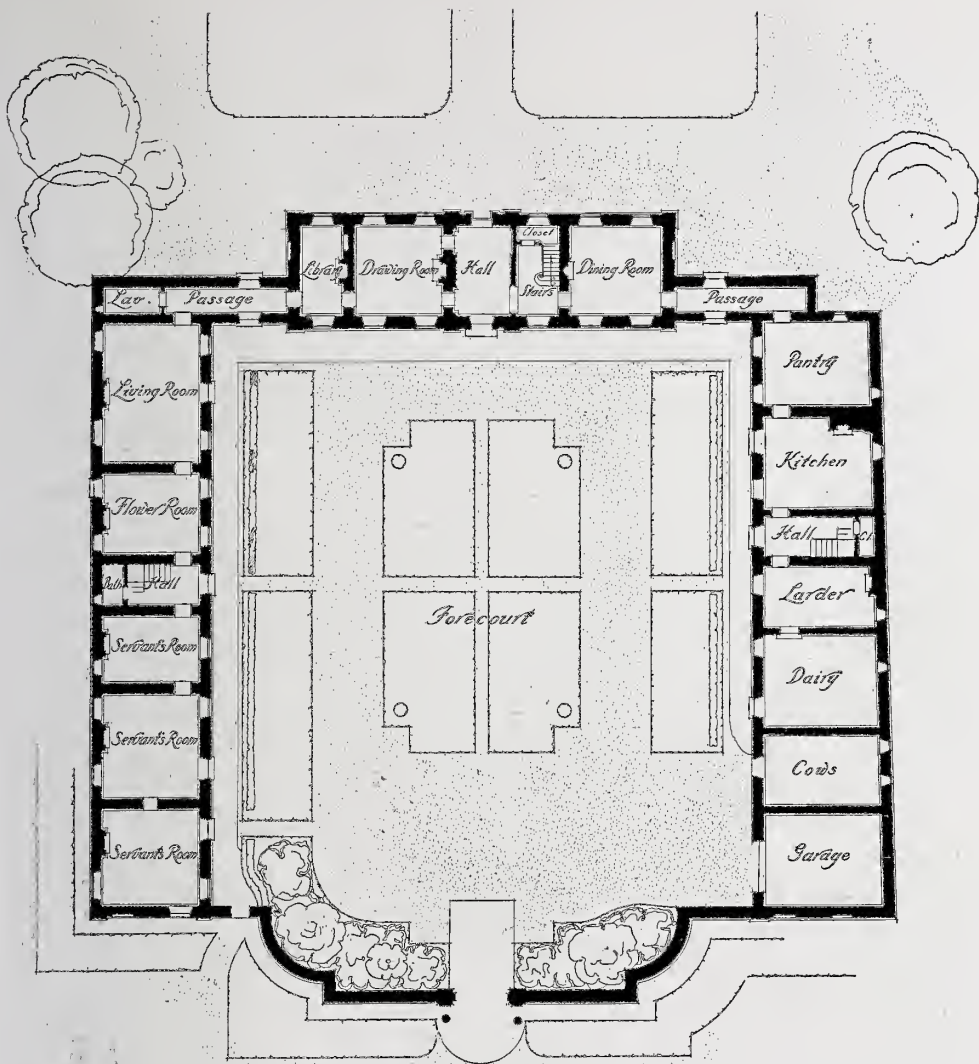


The Architectural Record.

Within the Forecourt.

LA LANterne, VERSAILLES, SEINE-ET-OISE.

May, 1923



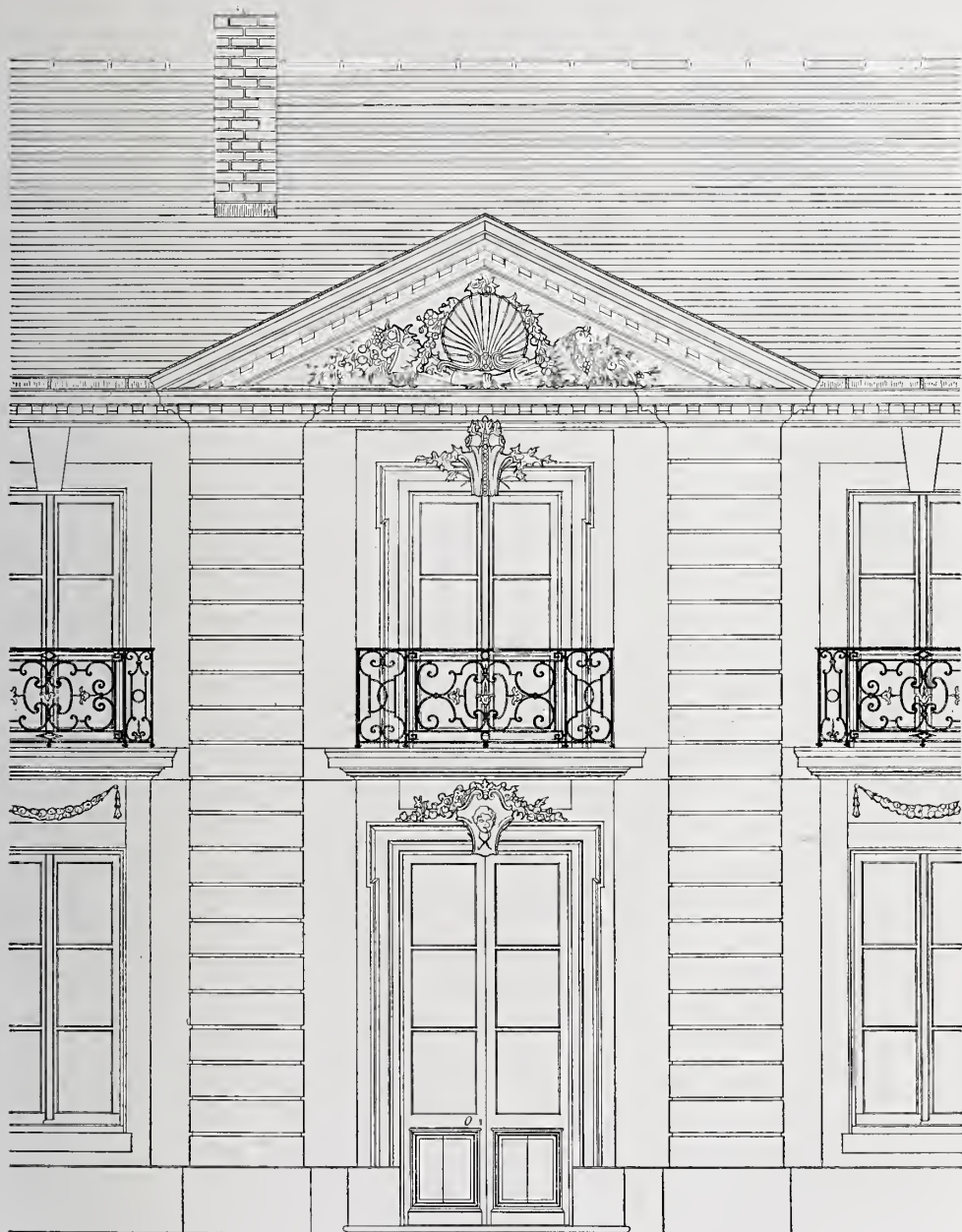


The Architectural Record.

May, 1923

Detail of South Front.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



Detail of
Main Entrance Doorway
Scale
La Lanterne Versailles



The Architectural Record.

May, 1923

Gateway.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



The Architectural Record.

May, 1923

Entrance to Forecourt.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE

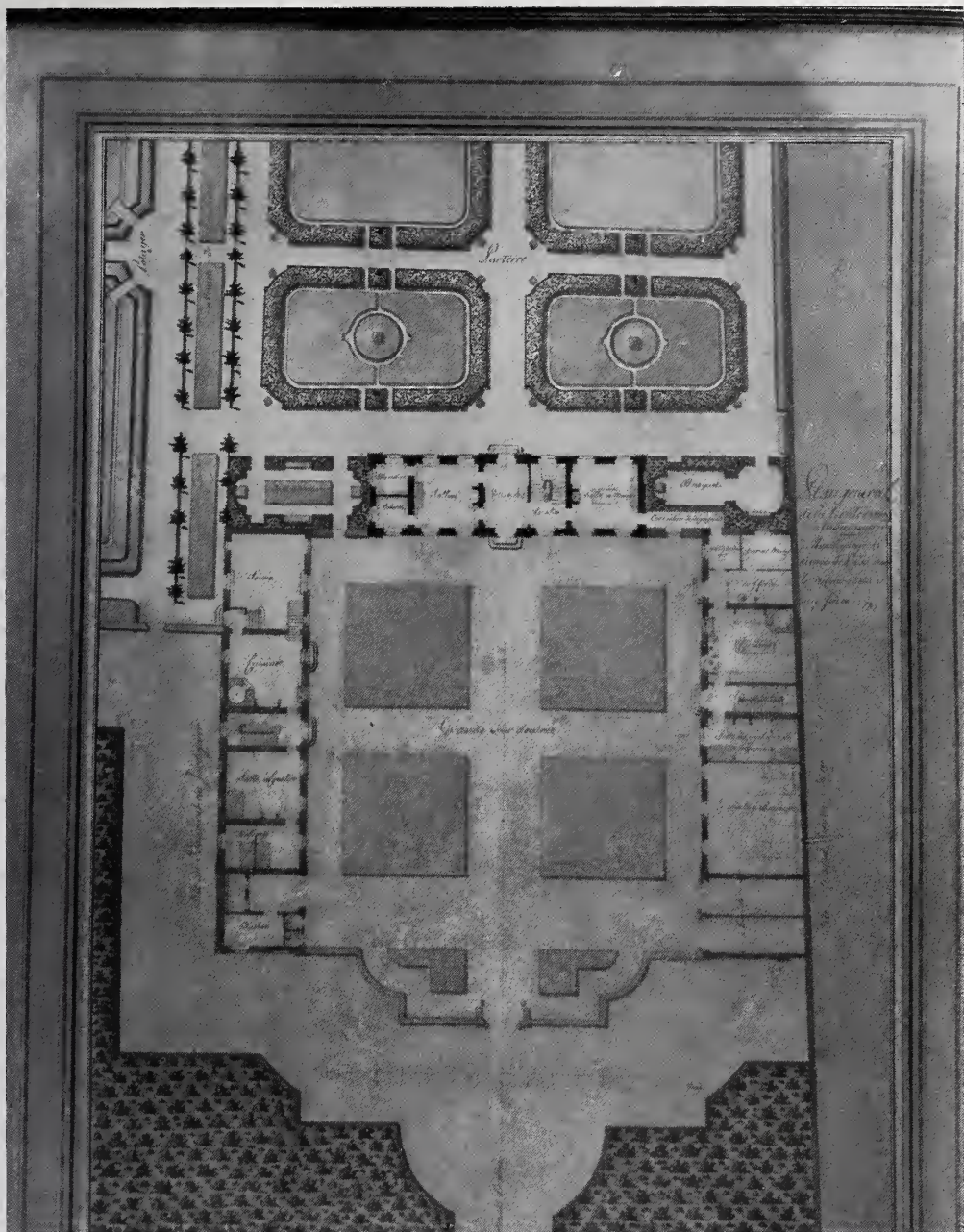


The Architectural Record.

May, 1923

South Door.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



The Architectural Record.

May, 1923

Original Plot Plan.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



The Architectural Record.

May, 1923

Northwest Angle of Forecourt.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



The Architectural Record.

May, 1923

Door in West Passage.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

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The Architectural Record.

Window and Balcony—South Front.

May, 1923

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



The Architectural Record.

May, 1923

Staircase Hall.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.



The Architectural Record.

Hallway.

LA LANterne, VERSAILLES, SEINE-ET OISE.

May, 1923



The Architectural Record,

May, 1923

Study.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

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The Architectural Record.

May, 1923

Dining Room.

LA LANTERNE, VERSAILLES, SEINE-ET-OISE.

CANOE PLACE INN GOODGROUND, L.I.

William Lawrence Bottomley, Architect



*By
Costen Fitz-Gibbon*

IN the latter part of 1921 the historic Canoe Place Inn, at Goodground, Long Island, was totally destroyed by fire. The destruction of the inn was not merely a material loss. For close on three centuries it had gathered about it the innumerable associations attaching to an old hostelry and posting house lying on one of the chief arteries of travel, and not only did the people of the immediate neighborhood regard it with a degree of affection and pride, but motorists, golfers, gunners, and all the summer population of Eastern Long Island looked upon it as a quaint landmark and cherished pleasant recollections of its hospitality. It had successfully withstood the precarious periods of change when so many old inns had closed their doors and taken down their signboards, after the advent of railways had curtailed their

business, and its position was established as a centre for sportsmen and week-end parties, a convenient and engaging place for motor parties to get luncheon, tea or dinner, and a gathering spot for numerous local activities.

In other words, Canoe Place Inn had come again into its own under modern conditions, although it had itself experienced little change. The strong appeal to its patrons exerted by the inn was due in large measure to its physical aspect, the picturesque rambling of the buildings added at successive stages of its history, and all the growth of individual traditions incident to such an establishment. To put it briefly, the "atmosphere" was just as important an asset as were the actual creature comforts the place had to offer. Of this the owners were fully conscious and they wisely determined,



The Architectural Record.

May, 1923

Entrance.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



The Architectural Record.

May, 1923

Dancing Pavilion.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



The Architectural Record.

May, 1923

South Front.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.

therefore, that the rebuilding of the inn should be, so far as possible, a restoration of the original building, or rather, to be exact, a *reproduction*, for after the fire nothing of the old structure was left standing but the massive chimney base of the 1635 portion.

Fortunately, there were numerous photographs and sketches to work from. The problem confronting the architect, therefore, was to re-create the physical aspect and the historical flavour of the inn as they were before the fire and yet, at the same time, to provide within the building such commodious accommodations and conveniences as modern conditions rendered imperative—particulars with respect to which the old inn had been none too well equipped.

These considerations it is necessary to keep in mind in order to understand the design and plans of Canoe Place Inn as they now appear. In one respect only did the architect have free scope for wholly original composition. The dancing pavilion, at the eastern end of the buildings, had been an indifferent structure of comparatively recent addition and was endeared to the inn's owners and patrons by neither appearance nor associations. This feature, therefore, it was possible to design *de novo* without consulting any traditions or former precedents.

While in external aspect the new inn closely follows its predecessor, it should be noted that the materials used and the methods of construction pursued minimize the risk of fire. At the same time, while heeding the construction of the new building, we must commend the agreeable results produced by a happy combination of materials and colour along with a pleasing relief of lights and shadows. Mr. Bottomley has for a long time made a close study of the local peculiarities of Long Island's traditional architecture and no one could be better qualified than he to give an accurate and sympathetic interpretation to such a work of reproduction as that now embodied in Canoe Place Inn. The dormers with splayed checks, slated and mortar-pointed, afford one of the most engaging conceits of the composition. If they were not a

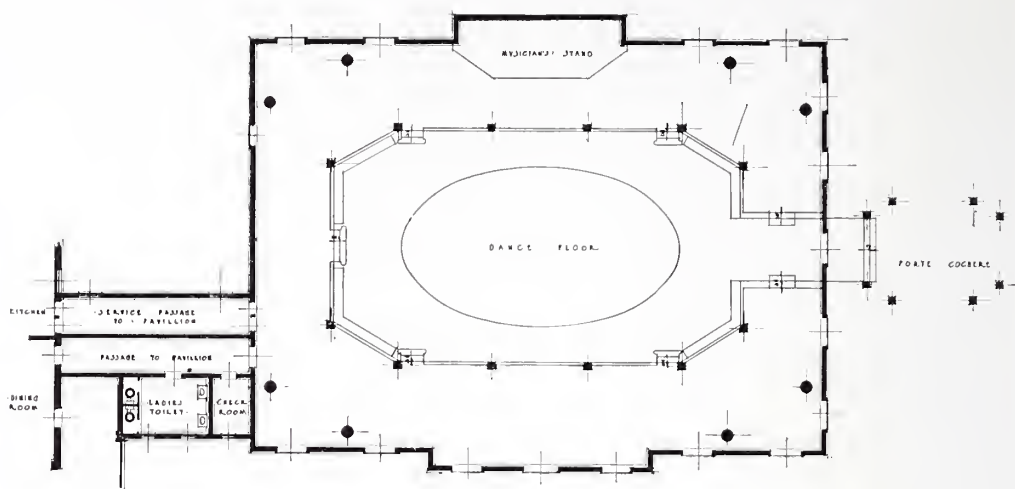
feature of the original design, they ought to have been. Every item of the work has been carried out with the most punctilious care, even to the reinstatement of the old inn sign with its device of an Indian paddling a canoe and the time-honoured legend beneath, announcing that the hostelry "affords shelter and refreshment for man and beast," along with these verses:

"This Is the welcome I have to tell—
Ye are well come. Ye are come well."

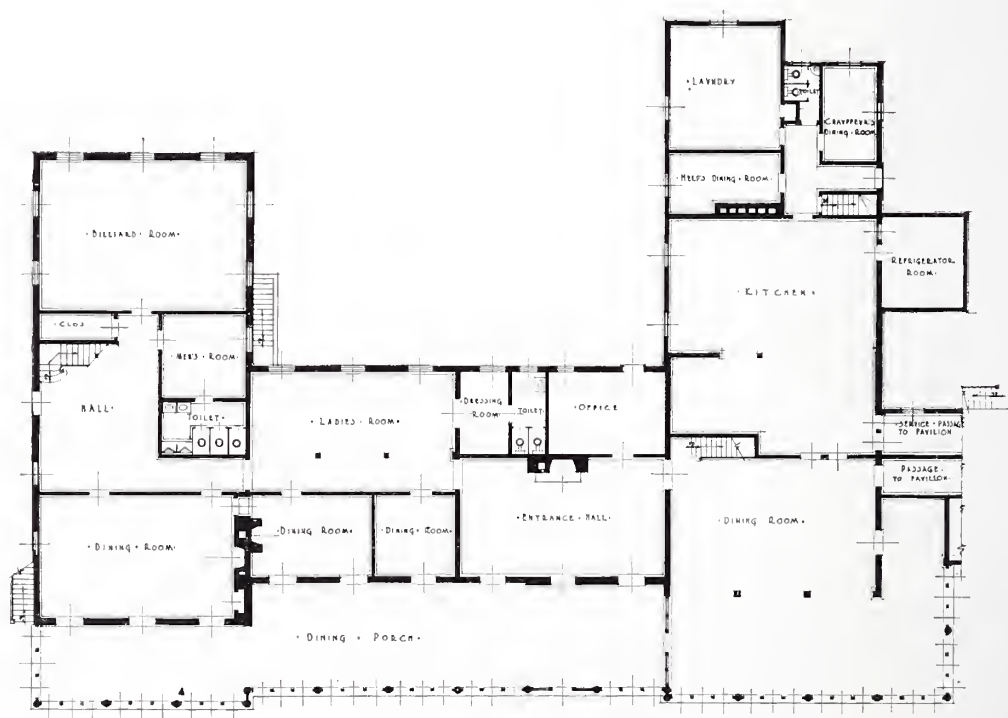
The ground floor plans show the old tap room—now serving the purpose of a lounge or lobby—and other traditional arrangements have been preserved, while also making adequate provision for dressing rooms, several private dining rooms looking out from the south side towards the road, a large and cheerful public dining room, with the same exposure, and commodious offices and kitchens. The dining room is blithely decorated with multi-coloured flower panels and the colour scheme of the whole room is carefully studied to diffuse an atmosphere of gaiety without, however, any of the flamboyant garishness that so often disfigures similar efforts. It should be added that the architect made the decorations and colouring a matter for conscientious personal attention.

On the upper floors numerous comfortable bedrooms with sufficient baths have taken the place of sleeping accommodations that previously were inadequate to the demands made upon them. In this case a certain amount of rearrangement was altogether admissible as the true character of the building was in no way disturbed thereby. The task of rebuilding was a work of reproduction, it is true, so far as the former aspect of the exterior and the more conspicuous public parts of the inn were concerned; it was not a work of archaeological precision within and it would have been foolish and indefensible to perpetuate in the sleeping quarters the limitations and discomforts of a bygone day.

The dancing pavilion, connected by a gallery with the eastern end of the inn buildings, while instinct with a very de-



Plan of Dancing Pavilion.



First Floor Plan.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



The Architectural Record.

Entrance and Sign.



South Front and Dancing Pavilion.

May, 1923

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



Dining Room.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.

cided individuality of its own, and unmistakably a separate composition, is, nevertheless, in complete harmony with the rest of the group. The stucco exterior, with white woodwork and green shutters, in the manner of the early nineteenth century, in its urbane Graeco-Roman lines combines the dignified restraint of the Regency with a touch of contemporary French suavity, producing an *ensemble* at once in keeping with its purpose and yet in accord with the less sophisticated mode of the adjacent structures.

The interior of the pavilion is in an altogether different though not unrelated manner, and its genial decoration is vividly reminiscent of Vauxhall Gardens in the heyday of their glory. Around the spacious oval dancing floor runs a slightly raised gallery on which are placed the supper tables. The pillars supporting the roof, and the ceiling over the gallery, are hung with narrow shirred

breadths of alternately lavender and light green material. The higher ceiling over the dancing floor is draped in a similar manner with converging shirred breadths in a striking sequence of purple, yellow and red, recalling the parti-coloured brilliance of the uniforms of the Papal Guards. Venetian and Japanese lanterns, hung at intervals, enhance the gaiety and punctuate the composition. The walls are of a cool, light green and the whimsically merry Baroque decorations surrounding the doors and windows are wrought in gilded stucco. The whole system of decoration is manifestly devised to produce a brilliantly harmonious effect by artificial light, and in fulfilling this purpose it is eminently successful. Seen by day, the room is agreeable, but its full force is obtained only by night and when the many-hued gowns of the dancers add the charm of life and movement. Considering the chief object of



The Architectural Record.

Old Tap Room.

May, 1923

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.

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The Architectural Record,

May, 1923

Floor of Dancing Pavilion.
CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



The Architectural Record.

May, 1923

East Door of Dancing Pavilion.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



The Architectural Record.

May, 1923

South Aisle of Dancing Pavilion.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.



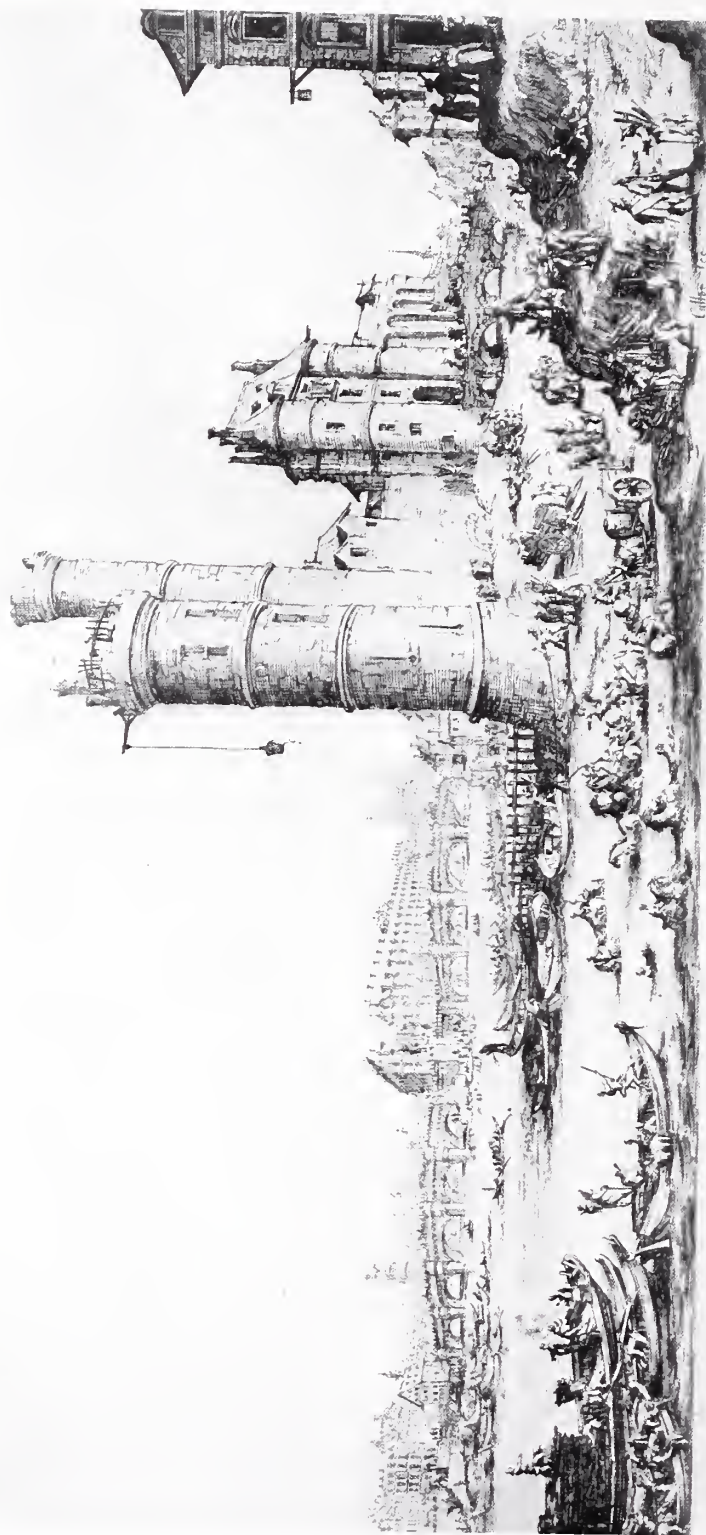
Dancing Pavilion.

CANOE PLACE INN, GOODGROUND, L. I.
William Lawrence Bottomley, Architect.

the pavilion, it was quite proper that the interior decorations should be thus planned, and it is safe to say that the event has fully justified the hopes and expectations of architect, proprietors, and all others concerned.

In reviewing the work at Canoe Place Inn it is gratifying to note, on the part

of the owners, the respect for a fabric so closely identified with local history; on the part of the architect, the sympathetic grasp of the essential qualities that gave the inn its unique character, along with an independent play of imagination refreshing and felicitous in its expression.



May, 1923

VIEW OF THE PONT NEUF AND OF THE OLD NESLE TOWER AND GATE.
Etching by Callot.

The Architectural Record.

THE ARCHITECT AND THE GRAPHIC ARTS

*Some Notes on Rendering
by Frank Weitenkamp*

WHAT ARE the graphic arts—the reproductive arts: etching, lithography, engraving—to the architectural draughtsman? What is a print more than a pleasant diversion, a delightful by-path, a little corner in the field of art, to the renderer, bent on serious problems of his profession? Apparently covering a very small section in the big scope of art, the term “prints” really stands for an enormous amount of production, with a remarkably wide sweep of subjects and a wealth of interest. In this mass of printed pictorial material the product of the architect’s activity is pictured with an insistent frequency. Buildings figure in a large proportion of etchings, engravings and lithographs.

Architects who have turned avocationally to etching (or other forms of graphic art), or who have taken it up altogether, have usually not etched architectural subjects. Or if they have introduced buildings in such work, they have generally not drawn them in the spirit of the architectural draughtsman or the renderer. Charles A. Platt, J. André Smith, Thornton Oakley, J. A. Mitchell, Cadwallader Washburn, Henry Winslow and H. B. Shope form cases in point, probably proving a natural reaction. William Walcott sees architectural dreams, or more correctly, perhaps, he conceives ideas of what such dreams might look like if they were dreamed. Henry Deville had a more definite interest in buildings as he roamed about New York City, setting down the little known, or the known from unusual angles. Yet he saw with the eyes of the artist as well as with

that of the architect. His buildings are not so much individual structures as parts of a significant whole. John Taylor Arms is somewhat more attracted by the architectural aspect, although he has done various subjects. He will linger lovingly over some detail such as the stony grimness of a chimera. Perhaps the most consistently architectural was A. H. Haig. He gave precise expression to his evident feeling for structural form, and he had an eye for the picturesque, for composition, for that arrangement of design and form and mass of light and shade that would make a pleasing picture and set off the beauties of the building he was portraying. In other words, he was, up to a certain point, an exponent of character. What he lacked, perhaps, was that fling of real genius that could transform cold stone into a vivid and inspiring suggestion of all the life and time and experience that lay behind it. But that does not mean that he may not have suggestions for the architectural draughtsman, the renderer. In fact, every one of the architects mentioned has his times of suggestion for him who will look—*technical* suggestion. That is equally true of a long line of men, not architects, who have worked in the graphic arts and have pictured buildings *per se* or as parts of a well-considered whole.

It has even happened that artists identified with figure subjects have achieved an incidental delineation of structures that made them fairly live as a vital part of the surroundings of the humanity which was the artist’s engrossing topic. Callot, etcher of the miseries of war and of gro-

tesques inspired by the Italian comedy, did two views of Paris centering about the Tour de Nesle. The old tower stands as the centre of a surging, ant-like activity of lively human interest, with the lines of the Louvre stretched delicately along the river, and the everlasting impressiveness of Nôtre Dame in the distant background. Later artists have exemplified this close linking of humanity and

ground to a scene, it may be depicted with a richness of tone suggestion that makes the stone or white-washed surface resound with a deep, succulent note in the harmony of the artist's conception. That may be seen in the little lithograph of two children frightened by a dog, by Decamps, or in the strange, mysteriousness of flickering shadows over stone or wood that emphasize the spirit of more than



Lithograph by Decamps.

buildings in evocation of the spirit of a given place. Felix Buhot notably so in Paris, and Brouet and Marius Bauer, the Dutchman, who makes dreams of the Orient real, and our own Lester G. Hornby. With such men we not only see buildings as significant backgrounds to man, but man himself appears as a vital factor in the scene, and not as the typical *staffage* of the draughting room, often drawn in over the architectural lines which show through, an empty shell serving to show scale.

Even where the building is reduced to a bit of wall adding the necessary back-

ground to a scene, it may be depicted with a richness of tone suggestion that makes the stone or white-washed surface resound with a deep, succulent note in the harmony of the artist's conception. That may be seen in the little lithograph of two children frightened by a dog, by Decamps, or in the strange, mysteriousness of flickering shadows over stone or wood that emphasize the spirit of more than

one etching by the American, Eugene Higgins. The point of all of this is that here there are suggestions for the renderer, as much, perhaps—sometimes even more—than in the architectural plates of Rochebrune, Queroy, Brunet-Debaines, Hedley Fitton, A. E. Howarth, Affleck, Dodd. None of all this work, it goes without saying, should be simply copied, the technique adopted in gay acceptance. It may often represent the facile use of an effective formula, which has its useful lesson for us, but which should be employed in proper proportion in the compounding of

one's own prescription. And it is well to vary that prescription according to need. It is dangerous to give way to the seduction of the clever stunt. That sort of thing never lasts, least of all if it is borrowed.

Etching, incisive expression of the

the delineation of London, where in the preceding century Wenzel Hollar exercised his honest and capable craftsmanship. Later came that contemporary of Turner, Thomas Girtin, of whom Blomfield writes: "The aquatints of Paris . . . are models of what drawings in line and



"DARK STREETS."
Monotype by Eugene Higgins.

needle and acid, has served much and well in this field. Piranesi is a chapter in himself. His grandiloquent expression of his fiery imagination puts realities before us, not the measured restorations of an archaeologist. He is a classic in the draughtsman's library, an influence in his day, an inspiration in ours. Then there are Rossini, G. B. Falda, Bibiena, Panini and other old engravers and etchers. There is such a wealth of material of potential usefulness to the renderer that one soon loses breath in the mere recital of names. Canale presented Venice with a shimmering lightness of atmospheric effect. Samuel Scott, at about the same time, applied a similar light precision to

wash should be, in their breadth and simplicity of statement, solid composition, and wonderful suggestion of atmosphere and the environment of buildings." In France, there were Perelle and Silvestre. With some of these old fellows one passes into the domain of the more formal line engraving on copper. The many engravings of buildings and formal gardens, the plates of which are preserved in the Louvre, are still being printed from, and impressions are to be had for a few francs. Jessen, in introducing a collection of those useful pattern designs for furniture and other objects of applied art produced in the eighteenth century in France, and at other times and in

other countries, wrote: "This rich world is only a blessing if the artist understands it in relation to its time and learns to recreate it for his own." The same is evidently true here. Eighteenth century production much of this is, reminiscent of that time when Moreau le jeune and others were turning out those remarkable pictures of French contemporary life, with the buildings of the time, usually the interiors, as a setting.

This work of other days gets me for a moment into a sidetrack of very great importance. There were recently shown, at the Fearon Galleries in New York, original drawings of architectural and decorative subjects by artists of the sixteenth to eighteenth centuries, such as Giulio Romano, Bibiena and Tesi. They brought vividly and emphatically to mind the significance and usefulness of drawings to the student. More than any other form of art do they place one in immediate, close and intimate contact with the artist's self. Happily, the publication of drawings in good reproductions has been going on for a number of years, so that a fine body of material is already available. The original etching or lithograph or wood engraving bring us into a somewhat similar intimate relation with the artist's direct expression.

Architectural subjects have been much cultivated by modern etchers. They have shown the influence of Rembrandt, of Whistler, of Meryon, Duveneck, Bacher, Mielatz, D. S. MacLaughlan, H. A. Webster, E. D. Roth, C. K. Gleeson, F. M. Armington, C. H. White, Childe Hassam, J. C. Vondrous, W. J. Quinlan, E. T. Hurley, Louis Orr, Muirhead Bone, James McBey, Fitton, Monk, Malcolm Osborne, Nathaniel Sparks—one sees that it will become a catalogue and one stops listing. Get comparisons by setting the delicate precision of Whistler beside the large decorative plates by Brangwyn. Set side by side Meryon's weird embodiment of the spirit of old Paris and the calm, sure, facile presentation of Lalanne. Take a building etched by several; Rheims cathedral, for instance, by Haig, Toussaint, Plowman, Pandolfi (also litho-

graphed by Leigh), or Nôtre Dame of Paris by Meryon, Toussaint, L. Gautier, T. F. Simon, Lepère, Bejot, Chahine. Webster, Wm. Walker, Rochebrune, E. L. Warner, Plowman, Hornby, Katharine Kimball, and—in lithography, R. J. Wickenden. Or, again, draw the parallel between a cathedral by that modern master of precision in architectural etching, Hedley Fitton, and D. Y. Cameron's depiction of the "Five Sisters" window in York Minster, bathed in mysterious, rich shadows that throw the tall, narrow windows into a dominance of strange impressiveness without departing from the facts of time and place.

For an interesting comparison of older and modern methods run over the plates in the volume on "London" issued some years ago by the *Studio*—Wenzel Hollar, T. Shotter Boys, Stanley Anderson, Wm. Walker, Wm. Monk, Verpilleux being represented, in etching, lithography and wood engraving.

Three names stand out particularly in lithography: Prout, Roberts and Bonington. Samuel Prout, once of a considerable reputation, and whose name still holds the weight of early approbation, strikes one as nearly always Prout of a formula. Where he cannot add the note of a picturesque decay (indicated by methods applied in somewhat of a stencil spirit), his imagination lags. He has, however, an unexpected delicacy of translucent shadows on the walls and columns of buildings, a treatment that will give quivering life to a portico or other architectural detail on which long shadows are thrown. In fact, it is this occasional suggestion of tone, of color, that attracts, rather than his facile draughtsmanship, which seems of the hand rather than of the head. Prout's prescriptions were set down in the volume he issued in 1848: "Hints on Light and Shadow, Composition, etc., as Applicable to Landscape Painting." David Roberts was more suave and more masterly. The very capability of his style, the method, binds landscape and buildings together, a matter emphasized by his use of the once popular and facile device of a tint, with high lights scraped out. He, too, handled



The Architectural Record.

May, 1923

"THE PIAZZETTA."
Etching by Whistler.



The Architectural Record.

May, 1923

BROADWAY ABOVE TWENTY-THIRD STREET.

Reprint from "Lithographs of New York in 1904,"
issued by the Society of Iconophiles.

Lithograph by Joseph Pennell.

translucent shadows well, and they do not strike you at first sight because they fit in with his general sufficiency. Furthermore, he has the not too common quality of suggesting decorative detail without detailing it. That is a thing that appears strikingly also in two lithographs done by the painter Bonington. In these street scenes in Rouen, which appeared in Baron Taylor's voluminous and sumptuous publication on France, there is delicate indication of decoration clearly present, yet fading into the smoothing haze of atmosphere.

Of course, after all, most of these men had a formula—so have later ones, much later, even the most revolutionary—only there is a difference even in formulas. And one can combine these formulas, or prescriptions (to repeat the merry imagery) into a *materia medica* to be drawn on as needed. In a word, to change the figure of speech, we digest what we study, and make it our own.

The modern revival of artistic lithography (painter-lithography, as it is also called), is likewise bringing its suggestions. The mind here naturally reverts to Pennell, master of the quick, unerring seizure of essential facts, who has seen the city in its architectural evolution, the industrial plant in its compelling picturesqueness, and has made us see them. There are younger men who are doing things in their own way. Howard Leigh, for instance. He sees the abbey at Soissons or the chapter house at Rheims, or other buildings, not as an assemblage of architectural and decorative details, but as massive constructions with a dramatic element born of their picturesque qualities. George Elmer Browne has done an "Old Mill" with a richness of color suggestion that has also its distinct lesson, as has likewise the self-controlled crayoning of Vernon Howe Bailey, which impresses by its direct sureness.

The wood-cut, too, has its lesson for us. Ruzicka, for example, delineates New England houses with a precision of linear statement, a primness which seems to grow from the spirit of which the buildings themselves were the product. J. J. Lankes suggests possibilities in his

roadside farmhouses. But one cannot cite all cases of architecture in the graphic arts—nor need one. The old saw still holds good: "A word to the wise . . ." That's really the object of the present screed—to rouse interest. The pleasure of the search will bring profit.

The deeper you get into this matter the greater and richer and more suggestive grows the *exposé* of personal expression. To run over a lot of such prints in fact or even in memory is to evoke an ever-changing outlook on the world of the architect, as varied as the ever-shifting color combinations offered by the bits of glass tumbling about in that toy of our youth, the kaleidoscope. This comprehensive view has its charm for the student, and its usefulness. In drawings made often not by rule but as the result of a personal outlook, there is a point-of-view and an expression in technique which show that in the picturing of buildings, as in that of any other subject, the artist counts, counts for much.

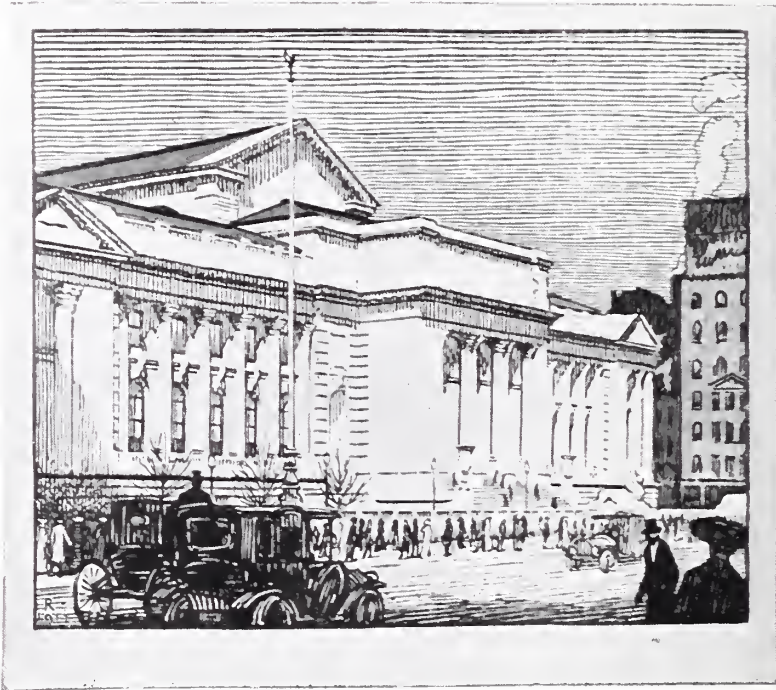
This broader outlook, this widening of interest, may be also the renderer's. Examples of professional rendering are easy enough to see and study—and imitate. But outside there lies a world of suggested possibilities, barely hinted at here. To the layman, it seems that the architectural draughtsman might profitably study works of graphic art for point-of-view expressed in technique. More, yet. Might not the renderer equally profitably practice these graphic arts? It is even conceivable that he may practice one or the other so well that an architect's client may choose to have a number of impressions of an etching or lithograph or woodcut which so intelligently and discriminatingly presents the beauty, the spirit, of the house or other building which he is having put up, that he will want to have others to have a record of this presentation.

The renderer, then, would adapt his style, the manner of treatment, to the building and its surroundings, just as the architect may adjust his design, his conception, and the building material, to the site; to the site of a house, or a bridge, or any other structure.

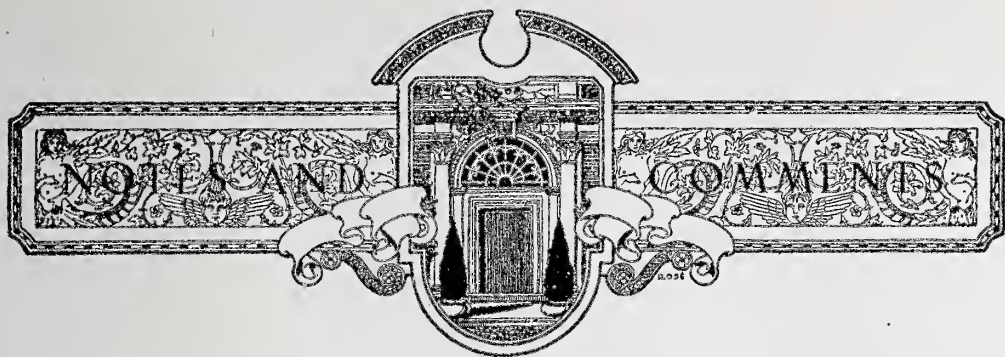
The librarian of a collection of books

on art and architecture, the curator of a print collection, is brought into contact with a mass of material of potential service to workers in various fields. He may respond to its suggestion of possibilities

without being able to do more than hint at the same to others, leaving it to them, as specialists, to test it all by the touchstone of authority and experience. His function, at best, is that of the guide-post.



THE NEW YORK PUBLIC LIBRARY.
Wood Engraving by Rudolph Ruzicka.



**Spanish
Interiors and
Furniture**

The fourth part, recently published, of "Spanish Interiors and Furniture," by Arthur Byne and Mildred Stapley, completes this book. (New York: William Helburn, Inc.) One can

now judge the complete work. The discrimination used in selecting the material and the consistent point of view give a cohesion and unity to the whole.

The book consists of two hundred pages of large illustrations from photographs and drawings by Mr. Byne, and a brief text by his wife, who continues to use the name by which she is so well known—Mildred Stapley. After looking through the pictures, which are of absorbing interest, and studying the sub-titles and dates, one wonders what more can be said on the subject and starts to look over the descriptive text. At once it is seen that this part of the work illuminates the whole to a remarkable degree and gives new life, insight and color to the illustrations. This text, in reality, serves as an exquisite setting for the pictures, binding them together, relating each to the other, and, although complete, seems all too brief.

The interiors of Spanish houses and palaces are at once more magnificent and more undisturbed than any others in the world. I am referring to the finished whole, not alone the rooms themselves, but to the rooms and their furniture, pictures, hangings and decorative bibelots. In Italy and in France there scarcely exists today a house of the XV and XVI centuries occupied by the original owners and with the original furniture. In Spain, even, they are rare enough and extremely difficult to find and to see, but, fortunately, a few do still remain. The reasons for all this are interestingly told, and one gets the thrill of enthusiasm for this successful research, with just a suggestion

of the adventures, excitements and difficulties leading up to each new discovery.

Probably no one else today has as much knowledge and enthusiasm for Spanish art in all its phases as have Mr. and Mrs. Byne. The Spaniards frankly acknowledge and admire it, and it is largely because the Bynes are well known and well liked the length and breadth of Spain that they have been able to make this remarkable and representative collection. Recently, in travelling through Spain, I found the name "Signor Arturo Byné el Alto" a name to conjure with, an open sesame.

The pictures have never been published before with but a few exceptions, and not only make a scientific record, but are intrinsically beautiful compositions. One reason I know of personally that gives the high quality to the whole is that the two hundred illustrations were chosen, selected and re-selected from about four thousand others.

The greater part of the material belongs to the XV and XVI centuries, although the later periods down to the XIX century are represented. In addition to the pictures of ensemble of the rooms, there are a great many pictures of individual pieces of furniture accompanied by scale-measured drawings. The book is unique as to its subject matter, and, more than that, it is, I think, the best treatise turned out on interiors and furniture that has been published.

WM. LAWRENCE BOTTOMLEY.

Messrs. Raymond C. Snow & Company wish to announce the opening of offices at 1612 Hurt Building, Atlanta, Georgia, for the practice of architecture and engineering. They would appreciate receiving manufacturers' catalogues and samples.

Mr. Joseph H. Bristle, Architect, is now located in Room 1010, Tacoma Building, 5 North LaSalle Street, Chicago, Illinois.

**Alfred C. Bossom's
Traveling
Studentship**

Alfred C. Bossom, architect, who was born in England, studied there, received many scholarships himself, and later came to America and subsequently made a great success of his work,

is now offering silver and gold medals and a traveling studentship to English architectural students, which will give them opportunities of making a greater success of their architectural education. The plan is as follows:

All large architectural schools in Great Britain are invited to compete. The Royal Institute of British Architects will annually arrange a problem of some definite practical existing condition that will have to be met, and designs submitted in each of the competing schools.

This problem will be the designing of a commercial structure such as an office building, hotel, apartment house, warehouse, etc., for which the student will have to submit not only the design, but also the most accurate approximate statement of costs and a financial statement as to the probable revenue, upkeep, costs, depreciation, etc. In other words, a complete financial statement of the entire undertaking.

The judges will be composed of a group of men, including a prominent architect, a prominent builder and a prominent business man, who will check up on all points of merit.

A silver medal will be awarded to the best design submitted in each school. The winners of these medals will send their drawings to London, where the Royal Institute of British Architects will judge them, as mentioned above, and select the best one to receive a gold medal. The winner will also have a trip to America, where he will stay and study for six months the American architectural methods. On his return to England he will be required to write a report on his findings, and copies of this report will be distributed among all the schools that have submitted designs in the competition.

This plan has been submitted to the Royal Institute of British Architects, who at this time are working upon it, and has been given to all of the larger schools in England, such as the University of London, University College, University of Liverpool, Manchester School of Architecture, Edinburgh College of Art, Glasgow School of Art, the Board of Education and prominent architects in England. It has been received with great enthusiasm and letters are coming in daily con-

gratulating Mr. Bossom on his splendid idea.

The interesting feature of this competition is that England will send her students to America to study the modern commercial architecture, which is conceded to be the best in the world, and undoubtedly many students will prefer to come to study conditions here rather than go to the Continent as they have done in former years to get ideas.

Also, it is Mr. Bossom's hope that this interchange of ideas will help very much to add to the understanding between the great English speaking peoples.

England is particularly pleased with this plan because it promises to stir up building, which has of late been operated largely at a loss due to the absence of the financial requirements on the part of the architects, and it should in a reasonable time to some extent help the unemployment problem, which is so acute at present. It will also be stimulating to investors and bankers, and kindred organizations are interested in the scheme.

Mr. Bossom is going abroad in the very near future to conclude the various details and make the necessary provisions with the Royal Institute of British Architects under whose jurisdiction it is being arranged that the scholarship shall be awarded.

**Interchange of
Architectural
Ideas**

In the London Daily Mail it is stated that a distinguished English architect, practicing in the United States, has recently visited England and that he is so much impressed by the fact

that commercial architecture of England is not carried out by the younger architects to the economic disadvantage of the building owner, that he proposes to institute a competition for a travelling studentship to the United States to enable the holder to study the large industrial buildings and commercial undertakings in America.

Such a travelling scholarship has indeed been made possible, according to the statement of Mr. C. McArthur Butler, Secretary of the Society of Architects, who announces that the Society is establishing such a scholarship with the avowed purpose of fostering the study of American architecture and methods.

Professor Reilly of the University of Liverpool, has likewise expressed the view that the mass of work in England is still being designed and executed by the old office trained men. Both of the important new buildings recently put up in London, the

London County Court House upon the Thames and the Port of London Building, belong to that era.

The interchange of architectural ideas, particularly as related to architectural education, will be advanced by the arrangements which have been made by the Massachusetts Institute of Technology and Harvard University, whereby lecturers and instructors in architecture will be brought from England and European universities in exchange for the temporary service of instructors from our own architectural schools.

A. LAWRENCE KOCHER.

An Opportunity For Foreign Study

American students of architecture will be interested in the opportunity offered to them by the Institute of International Education to study the development of architecture in Europe next summer under Professor Albert C. Phelps, professor of architecture in the College of Architecture, Cornell University. Professor Phelps will be a member of the faculty of the Art Students' Tour, which has been organized for the summer of 1923 under the sponsorship of the Institute; other members will be Miss Edith R. Abbot of the Metropolitan Museum of Art, New York City, as a lecturer on the history and appreciation of painting and sculpture; Mr. John C. Tidden of Rice Institute, Texas, as instructor in painting and lecturer on the fine arts from the standpoint of the creative artist, and others whose names will be announced later.

The group will sail from New York on June 30, 1923, on the Cunarder "Saxonia." Professor Phelps will lecture during each day of the transatlantic voyage, as a means of sketching in the broader outlines of the development of architecture and of preparing for the more specific lectures during the land portion of the trip. His lectures on shipboard will be illustrated by stereopticon slides from the collection of the Cornell College of Architecture.

After landing at Cherbourg, the group will visit Paris and Versailles, Rome, Perugia, Assisi, Florence, Venice, Milan, Ghent and Bruges, Brussels and Antwerp, the Dutch cities of Amsterdam, Haarlem and The Hague, and finally England. The return voyage will be by the "Saxonia," due to arrive in New York September 4.

The Institute of International Education, under whose auspices the Art Students' Tour has been organized, has for many years been

carrying on an important work characterized by such activities as exchange scholarships, exchange professorships, etc. During the last two years it has been extended to include also European travel for college students, organized so as to permit students to travel more inexpensively, more conveniently, and with greater educational return, than they could do otherwise.

Complete information may be secured from the Institute of International Education or from Irwin Smith, 30 East 42nd Street, New York City.

An International Competition

The Pan-American Union has received the rules governing the international competition for providing plans for the Municipal Palace to be erected in Montevideo, the capital of Uruguay.

The palace will not only contain the offices of the municipal government, but those of the national government as well. Competitors are requested to utilize, if possible, the foundation already existing upon the site, which has a dimension of 337' by 505'. It is the intention to have the building constructed principally of stone, quarried in Uruguay. The architects are asked to provide for a bell tower as a part of the general plans.

The competition will close on August 8th of this year. The winner of this competition will receive a prize of 10,000 pesos (the peso is equal to \$0.85 United States gold). The second prize will be 5,000 pesos, and the third 3,000 pesos. The Jury of Awards has been authorized to divide an additional 5,000 pesos among other competitors should their work merit this recognition. The erection of the palace will be in charge of the successful architect, who will receive 3 per cent of the total cost as additional compensation for this work. A plan has been provided for keeping secret the names of the competitors until after the awards have been made, and even then only the names of the prize winners will be known to the jury and to the public.

Copies of the ground plan and full details can be supplied by the Pan-American Union, at Washington, D. C.

Messrs. Ernest D. Ivey and Lewis E. Crook, Jr., Architects, have associated under the firm name of Ivey & Crook, Architects, and have opened an office in the Candler Building, Atlanta, Georgia. They are desirous of receiving manufacturers' samples and catalogues.

**American
Exposition Fair,
Atlantic City,
June 16 to Sept. 8**

An American Exposition Fair will take place on Young's Million Dollar Pier, Atlantic City, N. J., from June 16 to September 8, 1923. The affair is given under the auspices of the American

Home and City Beautiful Association with the two-fold object of encouraging the use of articles of American manufacture and education of the people of the United States in home and city beautification.

All of the exhibit floor space of the Million Dollar Pier will be devoted to eight principal groups with allied classifications, as follows: Public and private buildings, materials, equipments and furnishings; the garden, seeds, accessories and supplies; art, sculpture and ornaments; musical instruments and reproducers; The City Beautiful, embracing municipal improvements, hygiene, sanitation and accident prevention; pure food products, confections and beverages; recreation, athletics, resorts and travel information to boost the "Seeing America First" movement; and an important section will be devoted to "Wireless Wonders," showing radio in all practical amplifications.

**Exposition of
Building Ideas,
Cleveland,
June 25-30**

An interesting exposition of building ideas is being planned as a feature in the sixteenth annual convention of the National Association of Real Estate Boards, to be held in Cleveland

June 25 to 30.

The Cleveland Real Estate Board, hosts to the national convention for 1923, have approved and completed the final plans for the National Exposition of Building Ideas, which is conceived with the idea of bringing directly before the Realtors of North America the most modern ideas in building material, equipment, furnishings, refinements, interior decorating and landscape gardening.

For fifteen years the organized Real Estate Executives of North America have met in annual convention to exchange ideas. These executives, building owners, building managers and constructors who deal daily in every form of real estate, homes, apartments, factories and skyscrapers, will visit

the convention for the exchange of ideas, for serious study, enlightenment and education.

The National Association is composed of four hundred and eighty-seven boards, located in forty-seven states of the Union, four provinces of Canada and the territory of Hawaii.

The individual active members of the Associated Boards number more than twenty-five thousand. Twelve hundred members of the Cleveland Real Estate Board, hosts of the convention, are working diligently and will spare no expense to make the Sixteenth Annual Convention a real educational affair.

Mr. George Herbert Gray, Architect and Community Planner, announces the removal of his New Haven offices from 367 Prospect Street to 921 First National Bank Building. Mr. Gray further announces that he has taken over the organization, records, equipment and good will of the late Leoni W. Robinson, as his successor.

* * *

Miss Mabel Parsons wishes to announce that she will continue her father's practice of landscape architecture, under the name of Samuel Parsons, Inc., with Mr. Clarence Fowler and Mr. Richard Schermerhorn, Jr., acting as consultants in design and construction. The office has been moved from 101 Park Avenue to 15 East 40th Street, New York City.

* * *

Mr. Lewis Colt Albro, Architect, announces the removal of his office from 2 West 47th Street to 2 West 45th Street, New York City.

* * *

Mr. Palmer Rogers, Architect, announces the removal of his office from the second to the sixteenth floor of the Architects Building, 101 Park Avenue, New York City.

* * *

Mr. S. M. Colburn, formerly a member of the firm of Kees & Colburn, Architects, announces the formation of a partnership with Mr. Ernest Forsell for the practice of architecture, under the firm name of Colburn & Forsell, Architects, with offices at 210 South 9th Street, Minneapolis, Minn. They are desirous of receiving manufacturers' samples and catalogs.

The
ARCHITECTURAL
RECORD



JUNE

1923

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Gray Granite



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The Architectural Record

June, 1923

Photographs by Thomas Clark.

THE LINCOLN MEMORIAL, WASHINGTON, D. C.

Henry Bacon, Architect.

The ARCHITECTURAL RECORD

VOL. LIII

JUNE, 1923

NUMBER 297

The LINCOLN MEMORIAL WASHINGTON, D.C.

HENRY BACON, ARCHITECT



By Ralph Adams Cram

IT IS NOT altogether easy to know how to approach the consideration of this architectural monument. Here is one of the most significant civil structures in America, consecrated to a great and holy memory, occupying a site of distinction and importance in the chief city of the nation. No greater task could be placed before an architect, nor one more difficult of accomplishment, for there were no conditions which implied anything inevitable either in inspiration or in limitation (and in architecture the latter is of equal importance with the former), except the great and now almost mythical memory of Lincoln, and the terminal site which implied the vast composition of Capitol, Washington Monument and Mall. Unlike Columbus, the Pilgrim

Fathers, Washington, Abraham Lincoln came at a time in American history without a vestige even of architectural decency; his lasting memorial was to be created during a period of architectural eclecticism, without fundamental convictions or powerful impulses, while he himself was as far removed as possible from aesthetic associations or suggestions. One aid alone was offered; the classical tradition of the city of Washington now happily restored after an interval of tragic aberrations.

Could a harder task be set an architect than to work under such conditions? Manifestly not, and the question is, how has Mr. Bacon acquitted himself of the responsibility placed upon him?

It seems to me there are three tests that

may be applied to this monument; the tests of beauty, vitality and fitness. A work of art may possess one, two or all three qualities, but it is only the greatest work on the one hand, the most modest and unassuming on the other, that falls in the last category.

I think it will be admitted by everyone that Mr. Bacon's masterpiece fails in no respect in point of beauty. As a terminal to the great vista, it is absolutely right in form, scale, silhouette, light and shade. Personally, I do not like the rounded contours of the mound, and the steps and walls, particularly from directly in front, are awkward, angular and (to me) all wrong in alignment, but the building itself is a creation of pure beauty, perfect in proportion and with a restrained and noble dignity that could be produced only by one steeped in the deathless tradition of Hellenism. And this serene and chiselled beauty extends to the ornament and its placing in equal degree. Nothing could be finer than the frieze, the cresting and the festooned attic, not only in form, line, scale and rhythmical patterning, but in relief and varied texture and, above all, in placing and disposition. One is stunned and stilled by the masterliness of it all; not one false step in composition, colour or texture; nothing a fraction of an inch too high in relief or too low; not a spot too much nor a space too large. Whether under sun or moon or the over-theatrical search-lights, this perfect surfacing, this impeccable spotting of serene forms and musical light and shade, holds safely and reveals no fault, and there is no small honour in this. No; to the first question there can be but one answer; the Lincoln Memorial is a thing of pure beauty, distinguished, comprehensive, complete; perhaps the finest thing yet done in America in this respect.

And, after all, is not this the first task of an architect, the first test of architecture? If a thing is without beauty it is nothing—though it would seem that today there are those who hold otherwise. Significance, vitality, originality are good, but not unless they express themselves in terms of beauty, and for one, I will maintain under persecution that beauty is

neither subjective nor relative, but absolute, and that neither evolution, progress nor anything else can make a thing once beautiful, ugly, nor make an ugly thing beautiful in the sight of gods and men. Let us gratefully accept this demonstration here and now that the beauty that once was two thousand five hundred years ago is the same yesterday, today and forever, and at the same time bow in acknowledgment to Mr. Bacon for giving us this noble work as a reminder and an ideal.

In Samuel Butler's "Erewhon" (that great book) I find the following pregnant sentence that I will quote in spite of the fact that some may think I use it in a sense too critical of the Lincoln Memorial:

"I know not why, but all the noblest arts hold in perfection but for a very little moment. They soon reach a height from which they begin to decline, and when they have begun to decline it is a pity that they cannot be knocked on the head; for an art is like a living organism—better dead than dying. There is no way of making an aged art young again; it must be born anew and grow up from infancy as a new thing, working out its own salvation from effort to effort in all fear and trembling."

Now this has some bearing on the second question I have suggested, viz: does this building achieve vitality, is it instinct with the breath of flourishing life? We concede to it, or rather we assert of it, that it achieves a supreme beauty, but with equal certainty we must admit that it is not a living thing. One may say of it as Marlowe's Faust before the radiant vision of Helen of Troy, raised out of old night by the magic of Mephistopheles—

"Was this the face that launch'd a thousand ships
And burnt the topless towers of Ilium!"

Like the ancient vision, this is so fair a thing that it seems worth great sacrifice to achieve, and yet is it but vision after all, a momentary re-creation in an alien time of "the glory that was Greece



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Daniel Chester French, Sculptor.



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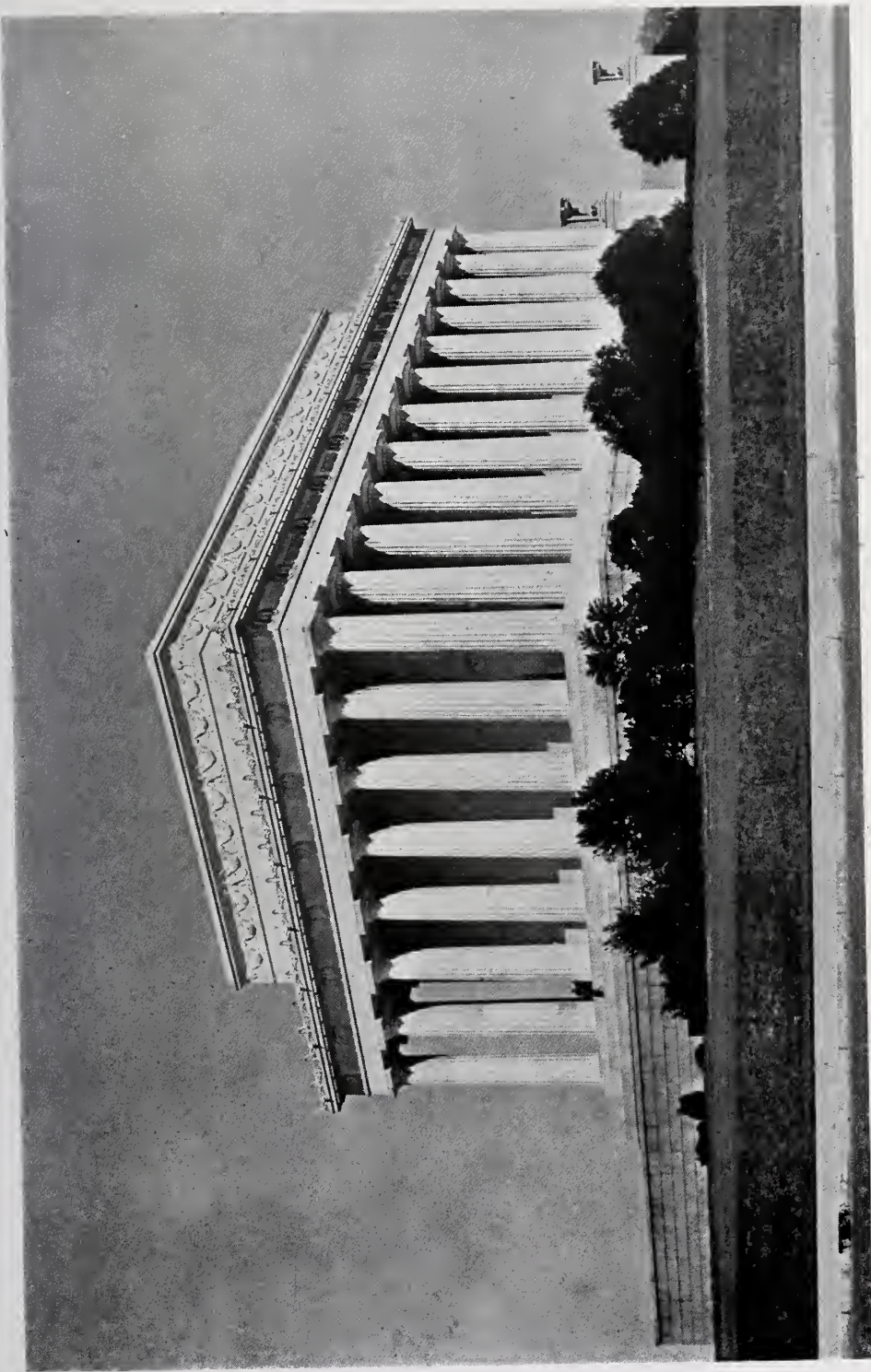
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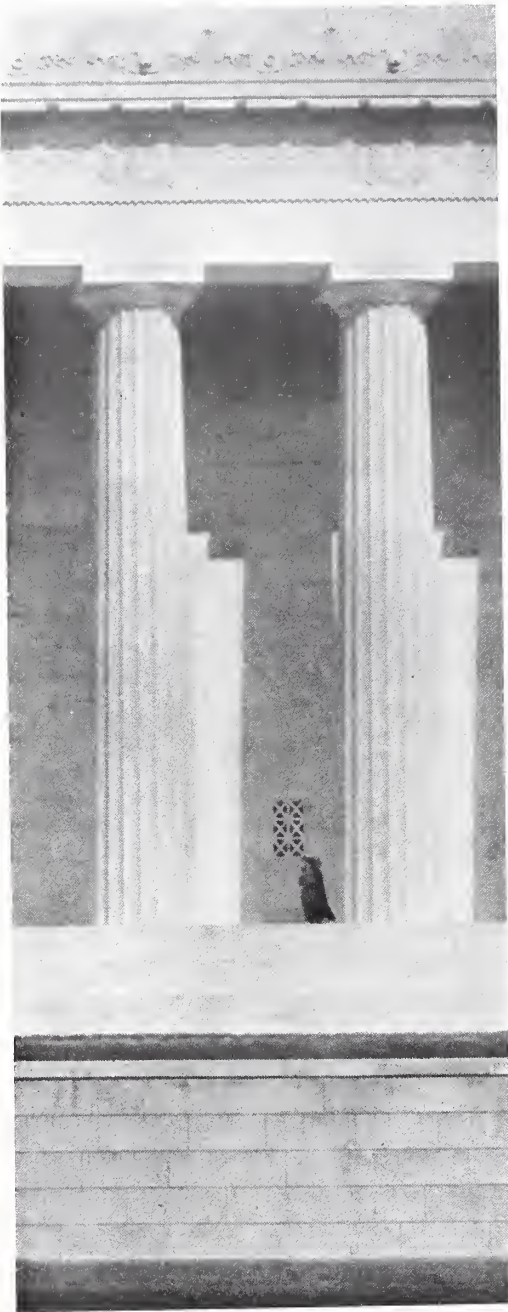
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DETAIL OF COLONNADE.

and the grandeur that was Rome." The architect has indeed taken a great art at its best, not in its decadence, and with some novelty of form (if with some dis-

regard of ancient subtleties) has raised up here in recovered marshes a sort of dream of the antique world that leads us back with the wistfulness of wonder to the contemplation of what men could be and achieve in the old days before the hierarchs of evolutionism had taught us that human progress is always onward from lower to higher things. It lived once, this supreme art of a world hardly emerged from the mists of oblivion, but does it live now, or can it be made to live? "The answer is in the negative" and not only here but always and everywhere, whether we are trying for a new renaissance of pagan beauty, or whether we are trying to impose a restored mediaevalism — Byzantine, Romanesque, Gothic or what not — on a society that is its antithesis in all things. The implied criticism is neither of the style of the Memorial nor of its architect; it is of all styles and all architects, of society itself and a civilization that is not of the kind (the thing never happened before in history) that can express itself in terms of concrete beauty nor inspire the artist to devise this form of expression. In a way our new commercial architecture is alive — at its best — for with its new modes of construction it has worked out the self-expression of a civilization that is real only in its industrial, commercial and financial aspects, all else being but a dress of outer respectability, a concession to a lingering tradition. The same is true of certain phases of domestic architecture, particularly those where money is spent with caution, for here, whatever the prototype, the inner holiness of private life has worked through the once historic forms and transmuted them into something intimate, contemporary and living. But is there real vitality elsewhere? I doubt it, even while admitting in other categories such as church buildings and colleges and libraries, an equal achievement of beauty with that of the Lincoln Memorial, and equal ability in craftsmanship, however different may be the re-created styles.

For Samuel Butler was right, "there is no way of making an aged art young again," and yet to these old arts we must

go for our first lessons in the forgotten language of beauty; the test comes in the usage we make of this recovered language and the things that life of which we are a part gives us to say through its symbols.

And this brings us to the third consideration, and that is fitness; does this marble temple, Attic in its nobility and purity, fitly symbolize the character and services of Abraham Lincoln?

Of course it has been criticised. There are those whose sense of realism, whose idea of expression running as it does along the lines of the accidental and the external, is offended by this white dream of a forgotten Acropolis as a showing forth of the Abraham Lincoln of history and of legend. Certainly, if you deal with externals, there is scant harmony between the gaunt, ill-proportioned figure, the cadaverous visage with its distorted modelling, the awkward carriage, the absurd clothing, and this classical fane which suggests only the perfect bodily forms, the chiselled faces, the noble vesture of Athenian gods and hierarchs and athletes. And the same is true if you regard the homely wit, the crude humor, the rustic manners of Lincoln. But were these of the essence of this great man? Is it not true that the qualities that made him great, the nobility of soul, the deep sense of honour, unselfishness and self-sacrifice, the tenderness and loving-kindness, are things that are unchangeable from generation to generation and command the same symbolical expression through the art of any time or mode? If we search for analogies we may say that Lincoln was of the order of the great Romans of the Republic rather than of the un-moral, aesthetic, intellectualized Greeks, but the architecture of Rome, as we know it, was of the Imperial period, and between that and Lincoln there was less community of spirit than in the case of Greek architecture. It is true that there is nothing here of some of the most appealing of Lincoln's qualities, tenderness, for example, and loving-kindness. Greek art knows nothing of this, either in architecture or sculpture or poetry, and the Memorial regards them not, though something shows itself



VIEW WITHIN THE COLONNADE.

through the statue in its shrine. The nobility is there, and the note of personal majesty, but without the more human elements there is a sense of loss.

And yet, if not this, if we reject the



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classical mode which by inheritance and tradition means nobility and all that is epic and heroic, what then? The tenderness and the charity and the poignant sympathy could have been expressed through some of the later forms of Gothic, and perhaps the other qualities as well (it has been done in the past) but Gothic is unthinkable in this connection, for an hundred reasons, one being that, apart from a few forms of religion, it is even less consonant with today than is the architecture of Greece. The architecture of Roman Imperialism, superb, magnificent, tyrannical and in essence fictitious, is out of the question, and equally Renaissance of any mode. What will you have if you reject this? Our own Colonial, perfectly adapted as it is to envisage Washington and the Fathers of the Republic, had long been dead, and in any case, with its restraint and delicacy and austerity, had nothing to do with the time when Lincoln lived, when America was sunk in an artistic barbarism worse than any recorded of any other people in any time, and, if this were possible, it has even less to do with us today. What, I repeat, would you have?

The reply may be (indeed it has been made), "Something new, vital, indigenous, something that will take colour from Lincoln himself and the cause for which he died, and so work out a new symbol, a thing individual and generic, a living thing, not a pale simulacrum out of a dead past."

Well, it has been tried, but has success followed? Certainly not in the German pre-war abnormalities, nor yet in the more cautious efforts of one or two men in this country. The nearest we have come to it is in the steel-frame, reinforced concrete exposition of commercialism, but certainly this does not apply in the present instance. It is easy enough to demand a new thing, to lay down the principles on which it should be based, but has any one done it, is any one ready to try? Is this after all the way it may be accomplished? I do not know of any art in the past that came so, came as the result of one man or many saying, "Go to, we will now produce a new and more vital form

of art." No, a new era in art comes "like a thief in the night," its footsteps are inaudible, but suddenly it is here, and it comes by way of one or two men who themselves, likely enough, were unaware of what they were doing. Once enunciated by the clamant trumpet of genius (my metaphors are becoming mixed, but never mind) the cry is taken up by many, there is a brief period of glory and then a slow dying away.

What is needed is a spirit in life, and a form of life, that demand manifestation through beauty interpreted by the arts and by means of artists who are at the same time seers and prophets, and without this inner and driving force conscious effort is useless. Apparently this energy does not exist today; there is something lacking in our form of society, in our motives of action, and art does not answer. There are times that naturally produce great and vital art and times that produce art of less value, but I do not know of any in the past that deliberately repelled art and would have none of it, except perhaps the first Dark Ages in northwestern Europe after the fall of Rome, and the Puritan episode at the close of the Reformation. Great war has sometimes given the magic touch, and there was a feeling, even a hope, that the last war, so much greater than others, would have the same results, but thus far they are not apparent; indeed, it will probably be admitted that art has weakened during the last ten years and is less vigorous today than it was before the war. It is certainly a fact that not one really great work of art, in painting, sculpture, architecture, music or poetry has been created during this period. There is something in our scheme of life that prevents its answering in aesthetic form even to the last stimulus of war.

Because this is so I think we are right, and Mr. Bacon was supremely right, to go back to the finest things we can find in some period of the past when art was an integral part of life, and re-create these as well as we can for those purposes which demand beauty in concrete form for their expression. Each thing so done may serve for enlightenment, may by contrast





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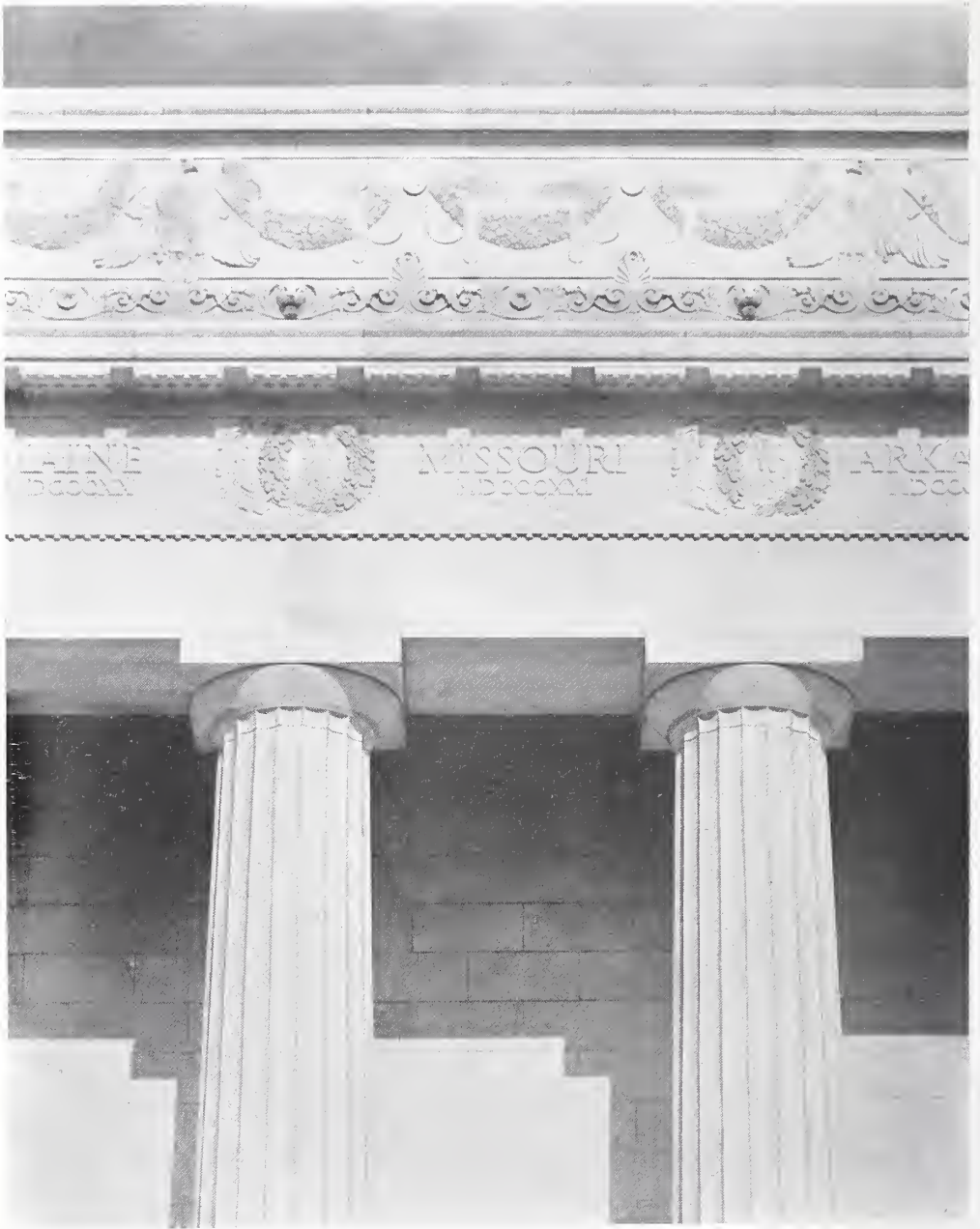


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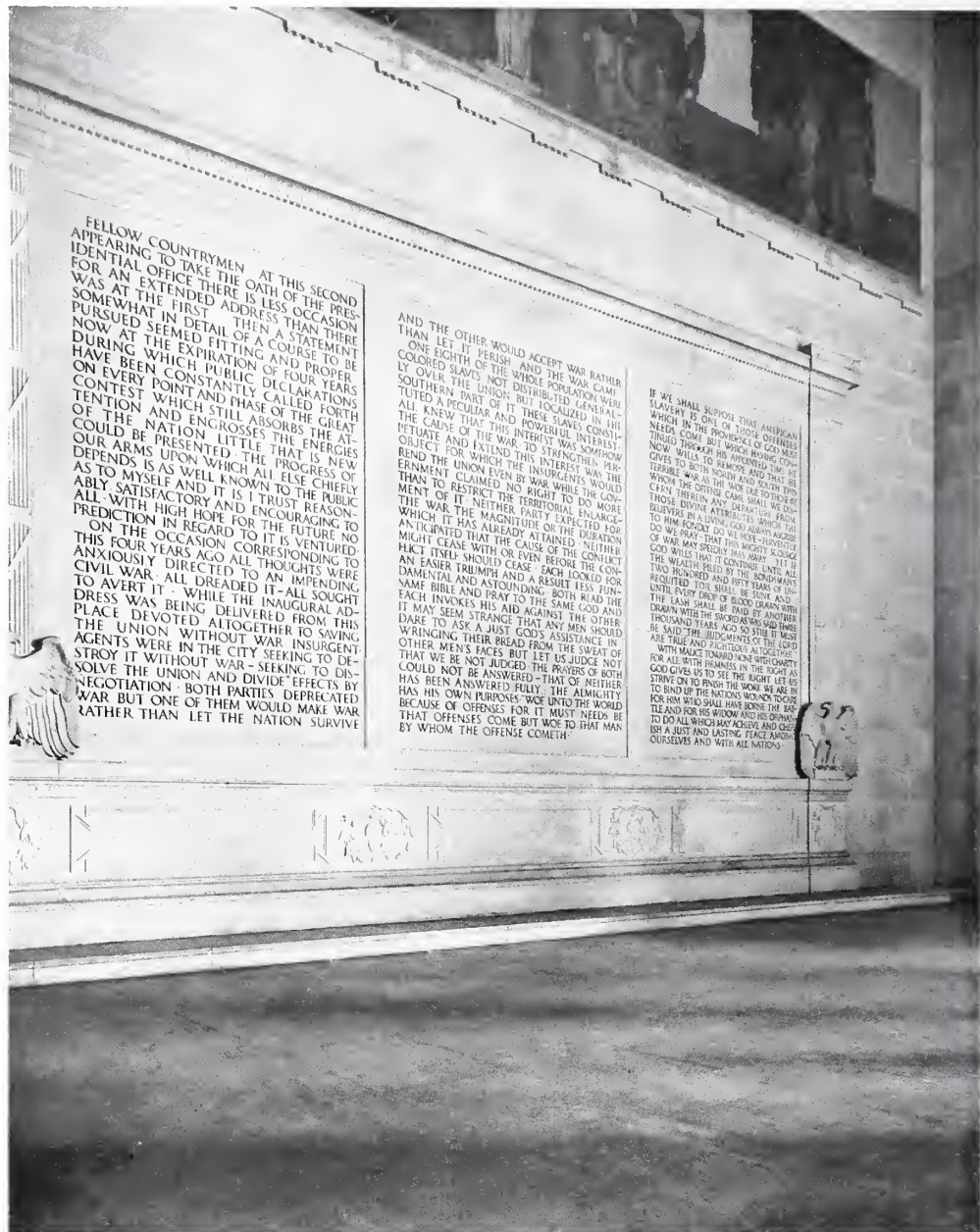


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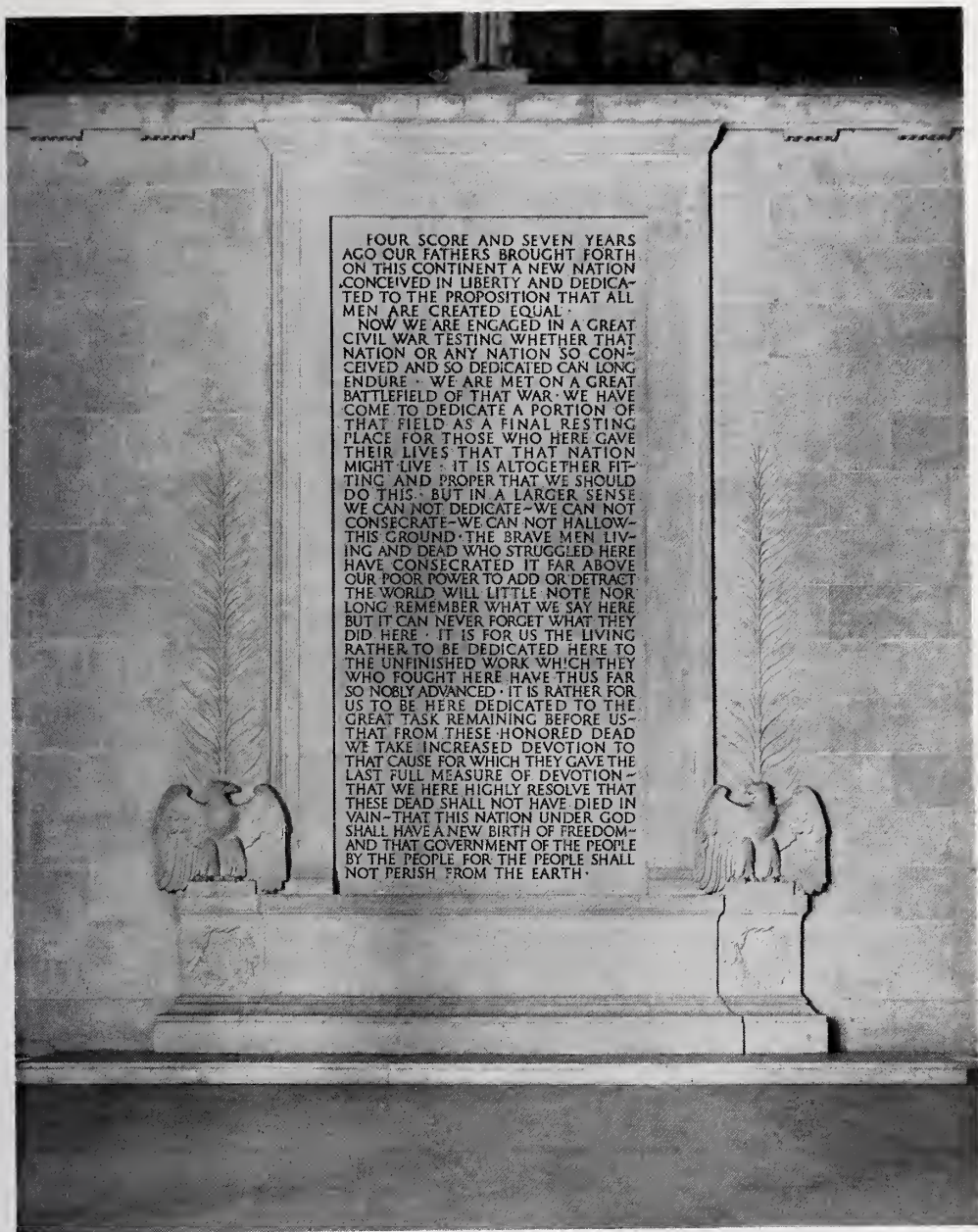
Henry Bacon, Architect.



FELLOW COUNTRYMEN AT THIS SECOND APPEARING TO TAKE THE OATH OF THE PRESIDENTIAL OFFICE THERE IS LESS OCCASION FOR AN EXTENDED ADDRESS THAN THERE WAS AT THE FIRST. THEN A STATEMENT SOMEWHAT IN DETAIL OF A COURSE TO BE PURSUED SEEMED FITTING AND PROPER. NOW AT THE EXPIRATION OF FOUR YEARS DURING WHICH PUBLIC DECLARATIONS HAVE BEEN CONSTANTLY CALLED FORTH ON EVERY POINT AND PHASE OF THE GREAT CONTEST WHICH STILL ABSORBS THE ATTENTION AND ENGROSSES THE ENERGIES OF THE NATION LITTLE THAT IS NEW COULD BE PRESENTED. THE PROGRESS OF OUR ARMS UPON WHICH ALL ELSE CHIEFLY DEPENDS IS AS WELL KNOWN TO THE PUBLIC AS TO MYSELF AND IT IS I TRUST REASONABLY SATISFACTORY AND ENCOURAGING TO PREDICTION IN REGARD TO THE FUTURE. NO ON THE OCCASION CORRESPONDING TO THIS FOUR YEARS AGO ALL THOUGHTS WERE ANXIOUSLY DIRECTED TO AN IMPENDING CIVIL WAR. ALL DREADED IT—ALL SOUGHT TO AVERT IT—WHILE THE INAUGURAL ADDRESS WAS BEING DELIVERED FROM THIS PLACE DEVOTED ALTOGETHER TO SAVING THE UNION WITHOUT WAR. INSURGENT AGENTS WERE IN THE CITY SEEKING TO DESTROY IT WITHOUT WAR—SEEKING TO DISOLVE THE UNION AND DIVIDE EFFECTS BY NEGOTIATION—BOTH PARTIES DEPRECATED WAR BUT ONE OF THEM WOULD MAKE WAR RATHER THAN LET THE NATION SURVIVE

AND THE OTHER WOULD ACCEPT WAR RATHER THAN LET IT PERISH. AND THE WAR CAME. ONE EIGHTH OF THE WHOLE POPULATION WERE COLORED SLAVES. NOT DISTRIBUTED GENUINELY OVER THE UNION BUT LOCALIZED IN THE SOUTHERN PART OF IT. THESE SLAVES CONSTITUTED A PECULIAR AND POWERFUL INTEREST IN THE CAUSE OF THE WAR. TO STRENGTHEN, PERPETUATE AND EXTEND THIS INTEREST WAS SOMHOW OBJECT FOR WHICH THE INSURGENTS WOULD BEND THE UNION EVEN IF WAR WHILE THE GOVERNMENT CLAIMED NO RIGHT TO DO MORE THAN TO RESTRICT THE TERRITORIAL ENLARGEMENT OF IT. NEITHER PARTY EXPECTED FOR THE WAR THE MAGNITUDE OF THE DURATION WHICH IT HAS ALREADY ATTAINED. NEITHER ANTICIPATED THAT THE CAUSE OF THE CONFLICT MIGHT CEASE WITH OR EVEN BEFORE THE CONFLICT ITSELF SHOULD CEASE. EACH LOOKED FOR AN EASIER TRIUMPH AND A RESULT LESS FUNDAMENTAL AND ASTOUNDING. BOTH READ THE SAME BIBLE AND PRAY TO THE SAME GOD AND EACH INVOKES HIS AID AGAINST THE OTHER. IT MAY SEEM STRANGE THAT ANY MEN SHOULD DARE TO ASK A JUST GOD'S ASSISTANCE IN WRINGING THEIR BREAD FROM THE SWEAT OF OTHER MEN'S FACES. BUT LET US JUDGE NOT THAT WE BE NOT JUDGED. THE PRAYERS OF BOTH COULD NOT BE ANSWERED—THAT OF NEITHER HAS BEEN ANSWERED FULLY. THE ALMIGHTY HAS HIS OWN PURPOSES—WAGE UNTO THE WORLD BECAUSE OF OFFENSES FOR IT MUST NEEDS BE THAT OFFENSES COME BUT MORE TO THAT MAN BY WHOM THE OFFENSE COMETH.

IF WE SHALL SUPPOSE THAT AMERICAN SLAVERY IS ONE OF THOSE OFFENSES WHICH IN THE PROVIDENCE OF GOD MUST NEEDS COME BUT WHICH HAVING COME SHOULD BE REMOVED AND THAT WE NOW WILL TO REMOVE AND THAT WE GIVE TO BOTH NORTH AND SOUTH THE TERRIBLE WAR AS THE WAY TO REMOVE IT FROM THE OFFENSE SHALL WE BE CEPTLY HEARIN ANY JUDGMENT BY THOSE DIVINE ATTRIBUTES WHICH GIVE BELIEVES IN A LINK-GOD ALWAYS ACROSS TO HIM FORGET DO WE HAVE SUFFICIENCY OF WAR PRAY THAT HIS MERCY KNOWS GOD WE MAY SPEAK PAID MAY. YET IF GOD WILLS THAT IT CONTINUE UNTIL ALL TWO HUNDRED AND FIFTY YEARS OF THE WEALTH PROD BY THE SLAVES WERE REQUITED. YOU SHALL BE SUNK AND THE LAW SHALL BE PAID IF ANOTHER THOUSAND YEARS AGO SO SHALL IT BE SAID. THE JUDGMENTS OF THE LORD ARE TRUE AND UNCHANGING. ALLGATHER WITH MAKE TOWARD NONE WITH SHAME FOR ALL WITH REWARDS IN THE RIGHT AS GOD GIVES US TO SEE THE RIGHT AS STRIVE ON TO FINISH THE WORK WE ARE IN TO BIND UP THE NATIONS WOUNDS TOGETHER FOR HIM WHO SHALL HAVE Borne THE SCAPE AND FOR HIS WIDOW AND HIS ORPHAN TO DO ALL WHICH MAY ACHIEVE AND GIVE US A JUST AND LASTING PEACE AMONG OURSELVES AND WITH ALL NATIONS.



THE LINCOLN MEMORIAL, WASHINGTON, D. C.

Henry Bacon, Architect.

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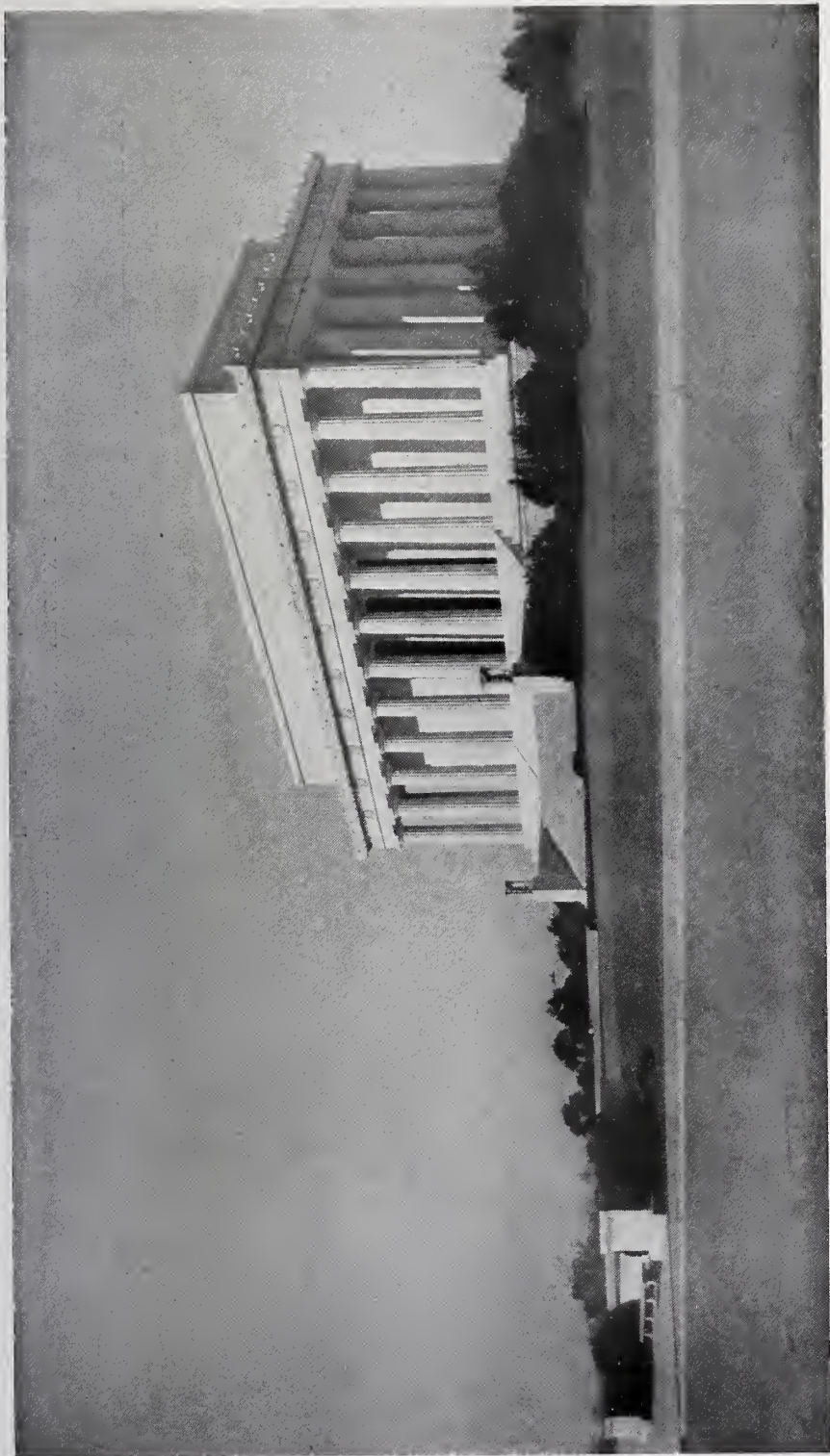


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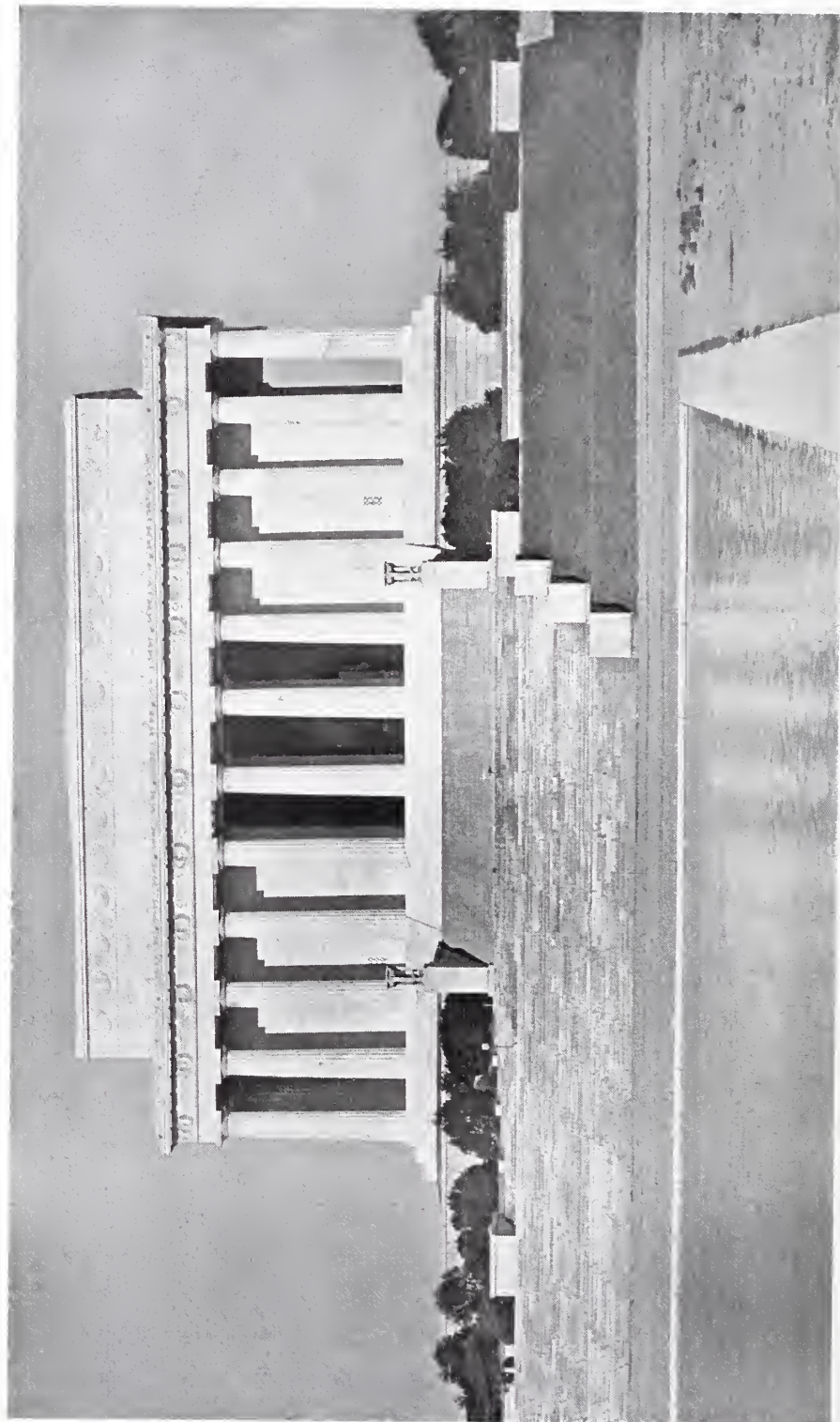
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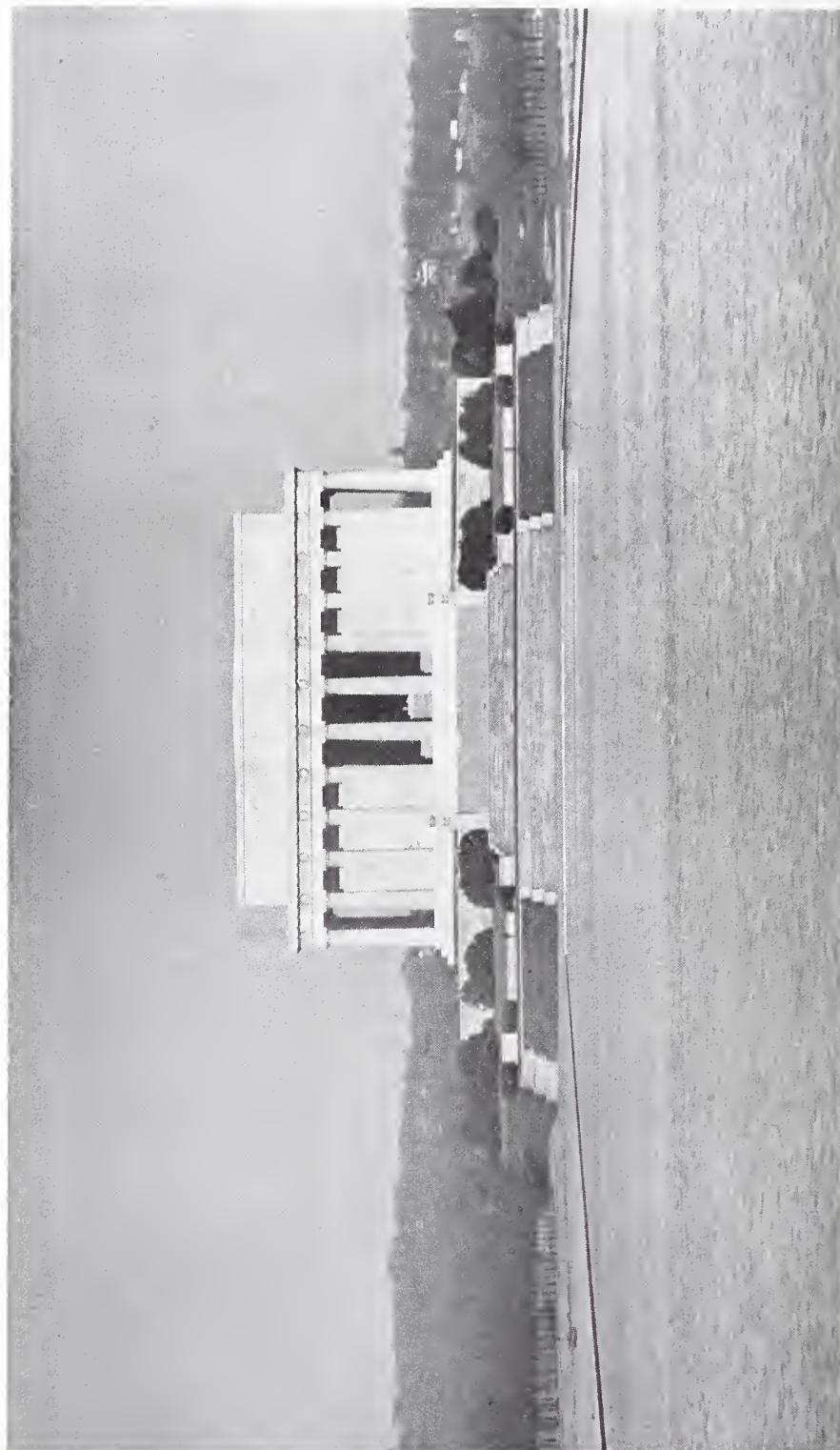
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urge us to criticism, perhaps in the end to rejection of those deterrents to real life that now hold society back from expressing itself with beauty and significance. Such a stimulus to regeneration is a monument such as the Lincoln Memorial. It does fittingly show forth the inherent nobility of the man it commemorates; it well expresses the eternal reverence of a nation, but also it sets forth the splendour of pure beauty and asks its wordless question: "Has the life you live the power to show itself thus, and if not is it the life you ought to live?"

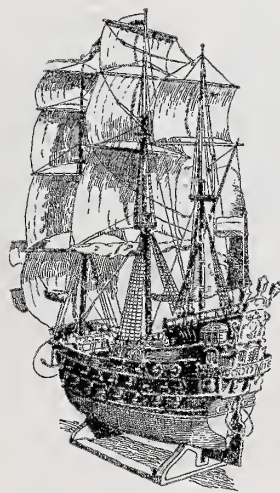
For my own part I can admit the

validity of the criticisms that may be offered, and in spite of them still hold that the architect could have done nothing nobler than this, since life itself could give no impulse towards a thing more original and contemporaneous. To no architect or other artist belongs the final credit for supreme achievement or the final blame for failure. It is the quality of life that counts, and controls him either for triumph or for its reverse. That, with life as it is, the Lincoln Memorial should be what it is, is certainly to be counted to Mr. Bacon for great and lasting credit.





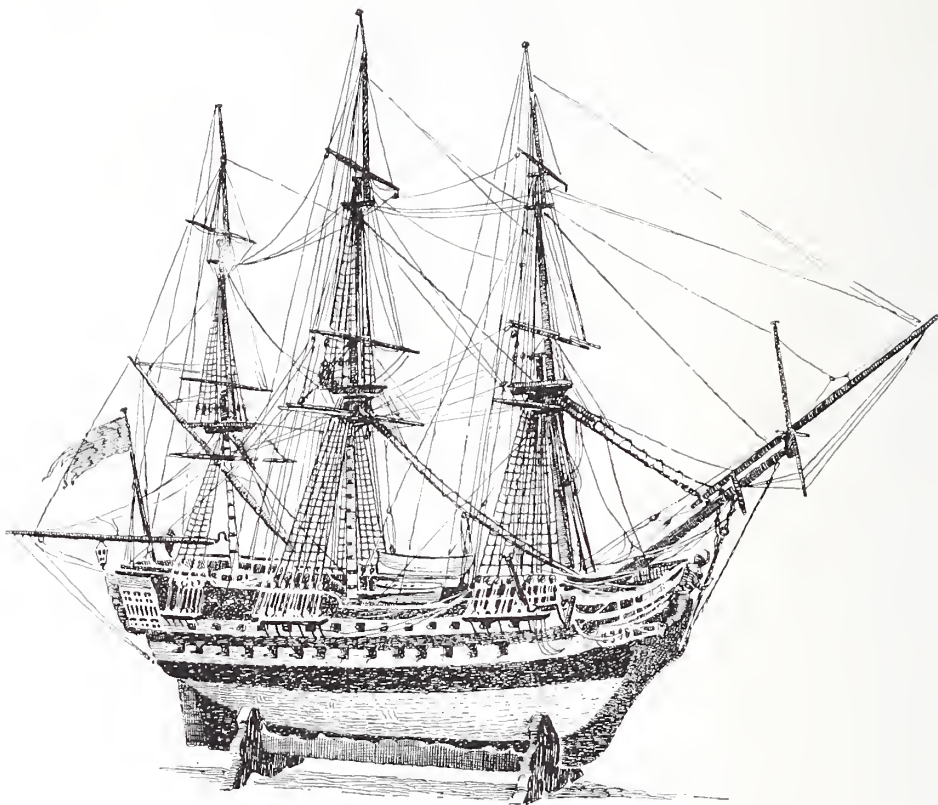
DECORATIVE SHIP MODELS



*Either slung from the smoky rafters of
a studio room - silhouetted against the light
of a vast window, or comfortably berthed in
a lighted niche, or on a mantel-shelf
these little models add the charm of
Romance to a room* ~ ~

*Eight Drawings by
Jack Manley Rosé*

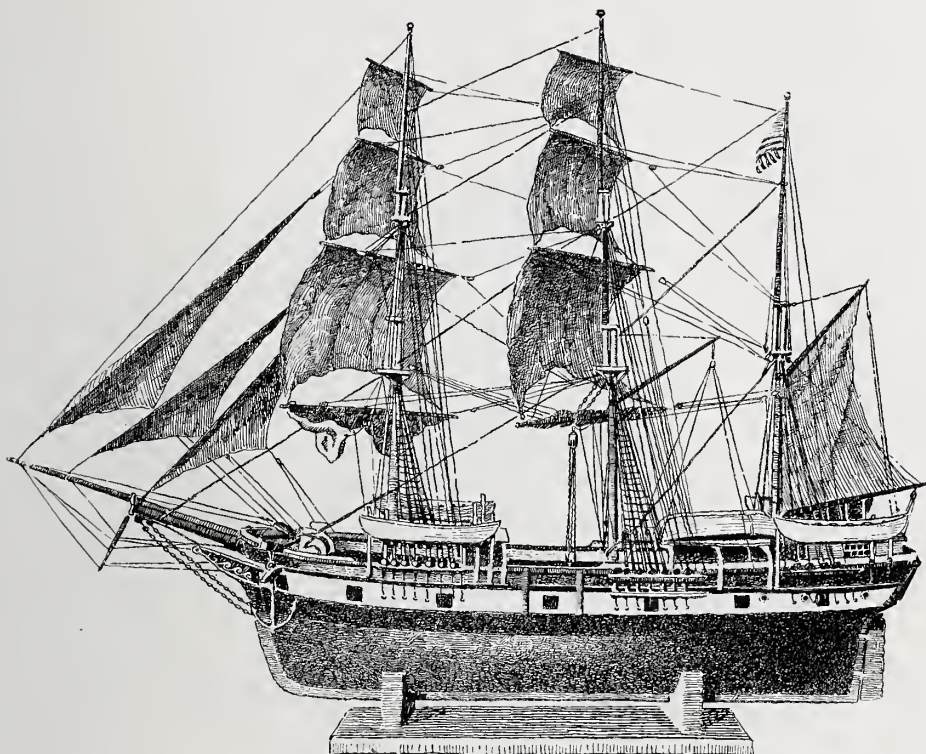




J. M. Rose



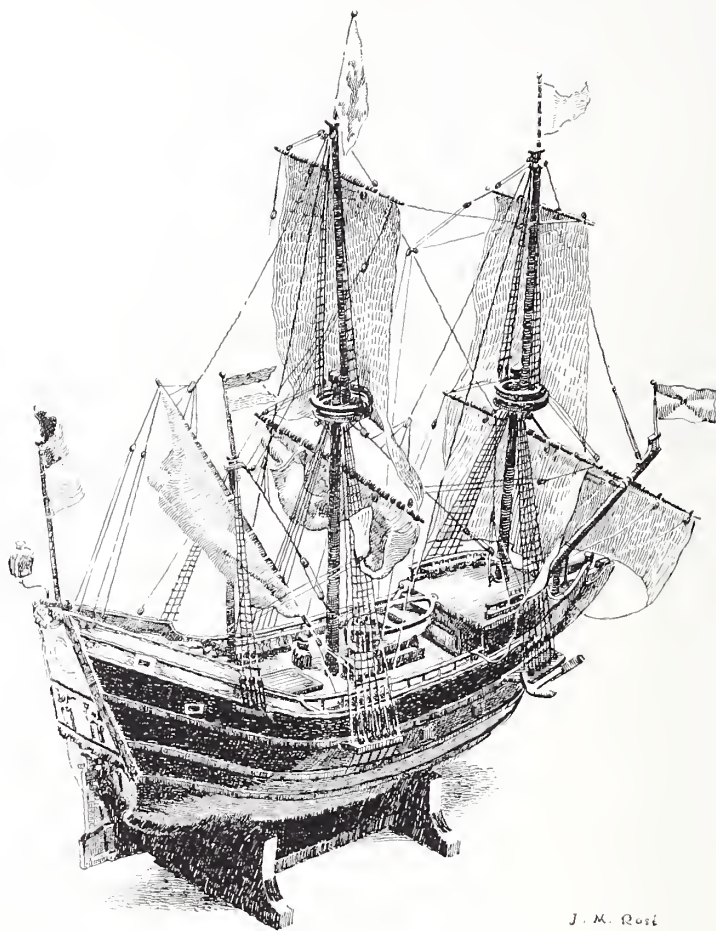
A Sturdy English Warship of
the XVIII Century that evokes
thoughts of the lurid old sea
battles of that lusty period ~ ~



J M Rose



Truly American is this trig
Whaler whose prototypes were
the pride of the old harbors of Salem,
New Bedford and Nantucket. ~

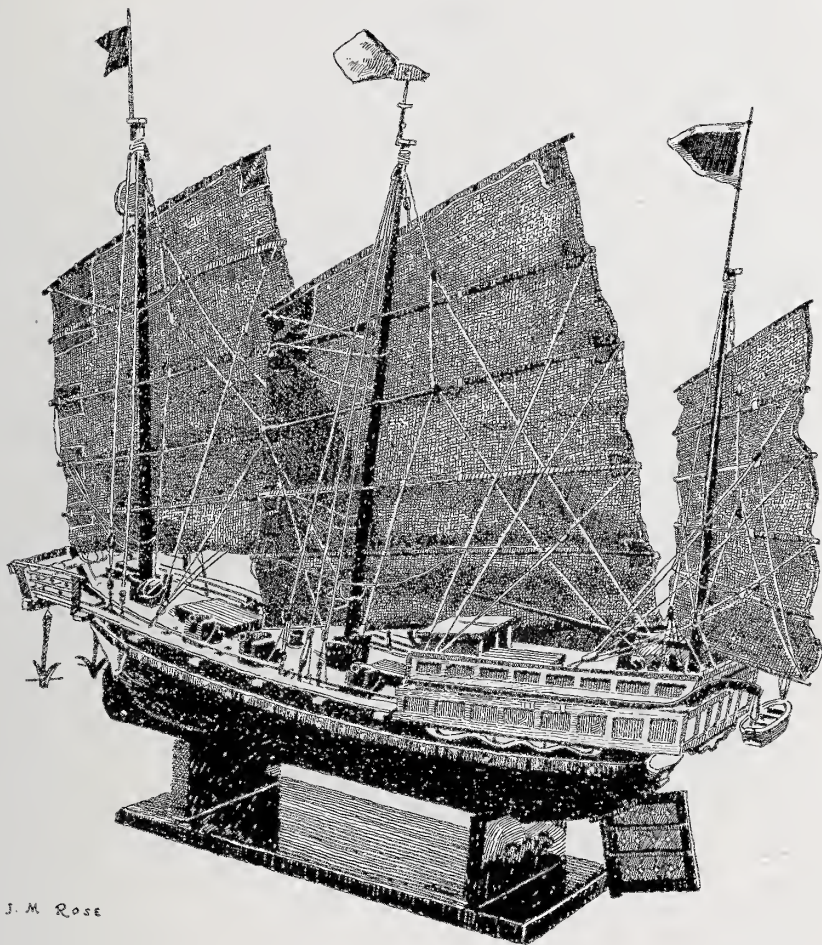


J. M. Ross



The little Half Moon is a picturesque craft and has a particular fascination for the student of history and the connoisseur.

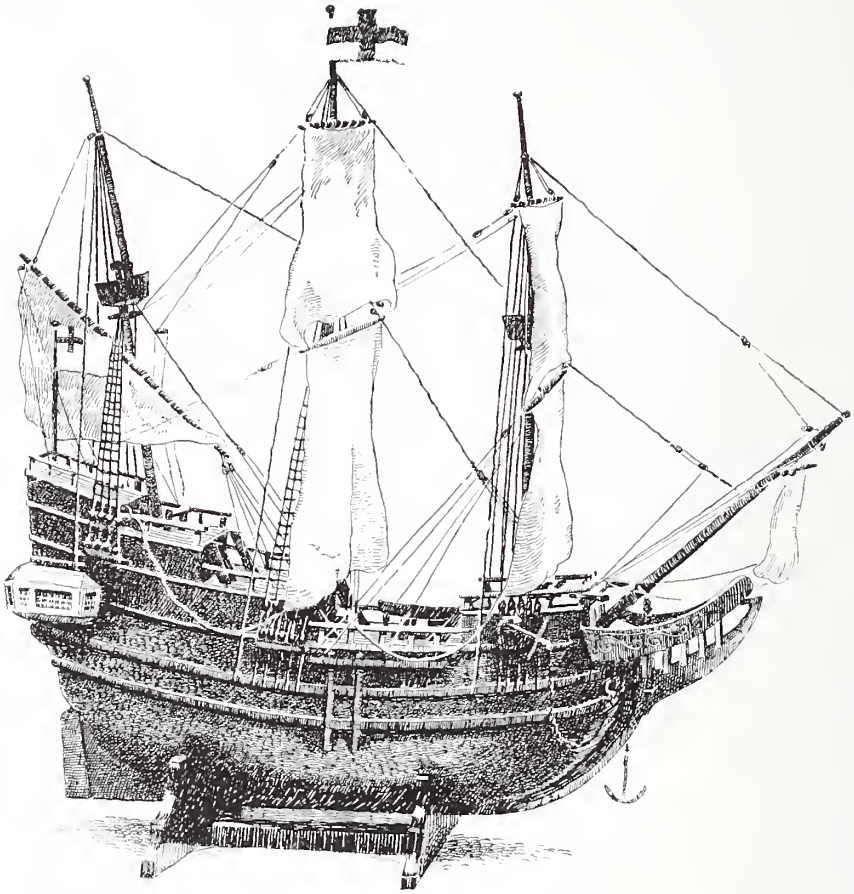
MODEL BY MEYER



J. M. ROSE

There is hardly any model
as brilliantly decorative as
a Chinese war Junk, bringing to mind the
mysteries & enchantment of the Eastern seas

MODEL BY MEYER.

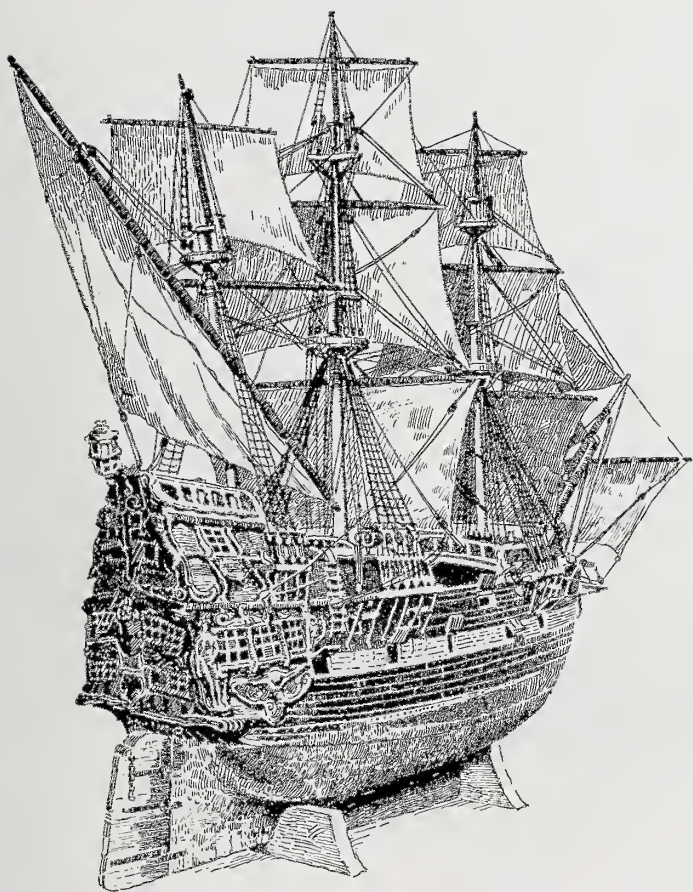


J. M. Rose



Forever dear to New England folk
is the tiny and intrepid Mayflower
and certainly interesting in its de-
tail and quaint contour.

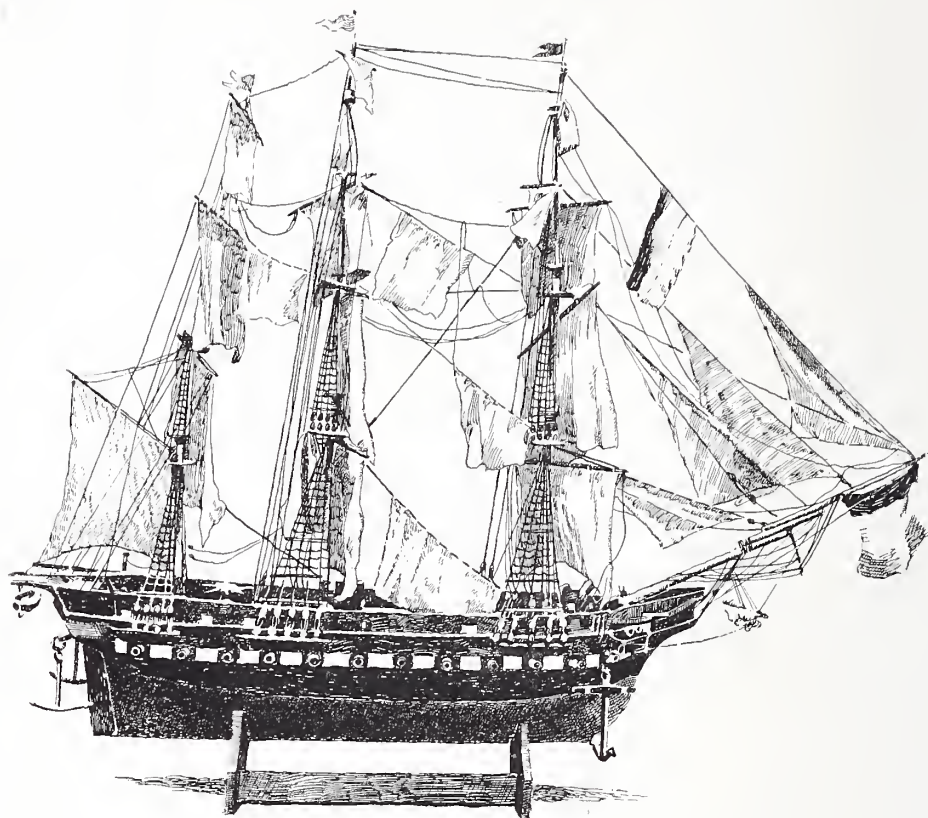
MODEL BY MEYER



J. M. Rose



Smacking of the days of treasure
ships, of Southern Seas, Pirates
and wild Romance is this XVII
Century ship with its high enriched stern

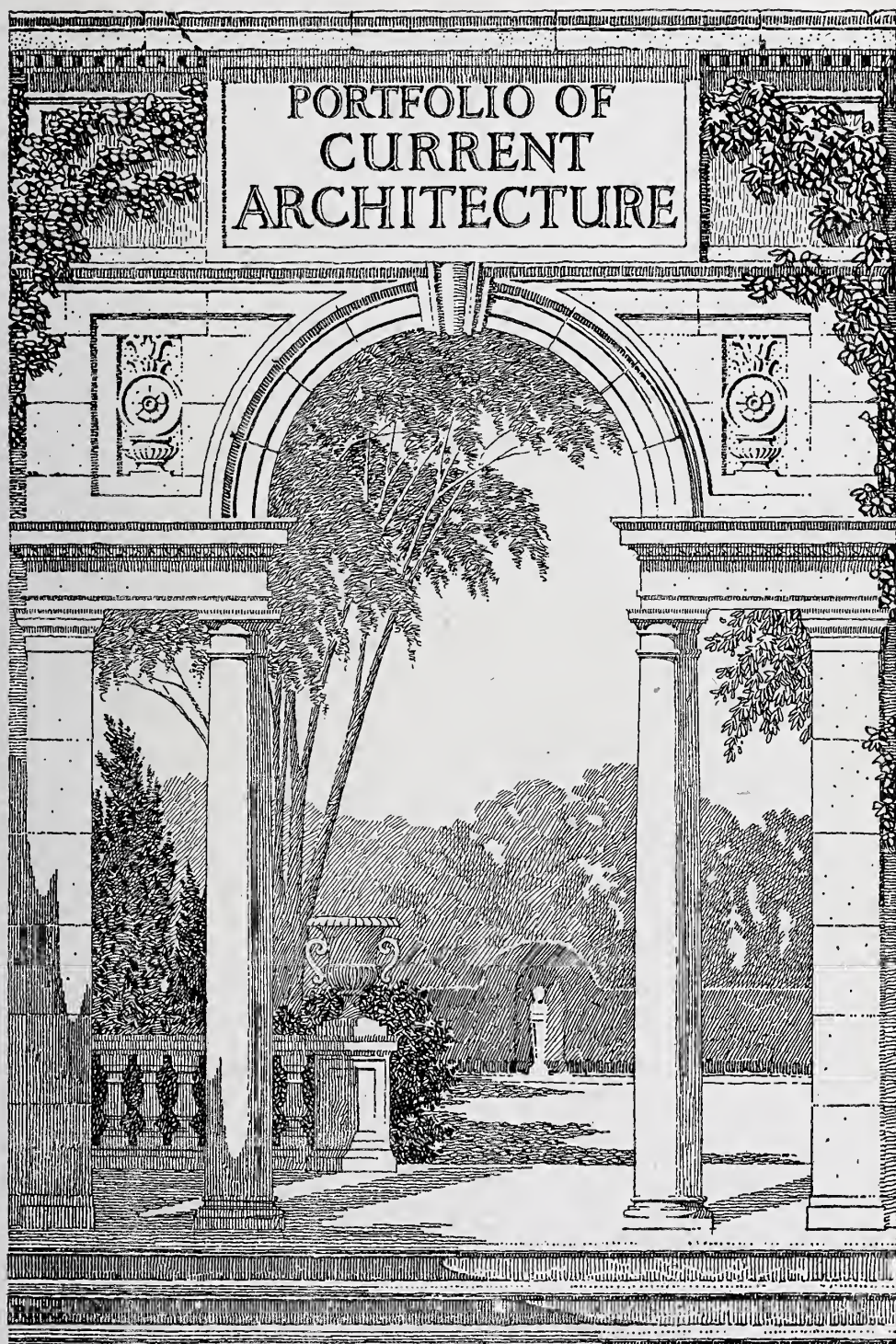


J. M. Rose



An early XIX Century Dutchman
with an atmosphere of weathering
many a stormy sea.

METROPOLITAN MUSEUM





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RESIDENCE OF MRS. J. E. DUFF, PELHAM, N. Y.

Lewis Bowman, Architect.



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Lewis Bowman, Architect.



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City Hall.
EAGLE ROCK, LOS ANGELES, CALIFORNIA.
Wm. Lee Woollett, Architect.



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City Hall.

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EAGLE ROCK, LOS ANGELES, CALIFORNIA.

Wm. Lee Woollett, Architect.

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OFFICE OF PERCY ROCKEFELLER, ESQ., NEW YORK CITY.
Mrs. Thomas, Decorator.

June, 1923



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Mrs. Thomas, Decorator.

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HOLY NAME HOUSE, NEW YORK CITY.
Raphael Hume, Architect.



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RESIDENCE OF WILLIAM S. GAGE, ESQ., PELHAM, N. Y.

F. Albert Hunt, Architect.



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RESIDENCE OF WILLIAM S. GAGE, ESQ., PELHAM, N. Y.

F. Albert Hunt, Architect.





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RESIDENCE OF ALBERT STRAUSS, ESQ., NEW YORK CITY.

York & Sawyer, Architects.



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York & Sawyer, Architects.

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The APOLLO THEATRE

■■■ CHICAGO, ILL. ■■■



HOLABIRD & ROCHE, ARCHITECTS

WHILE THERE is not and we hope never will be any prescribed architectural style for theatres, there is a certain family resemblance among them, particularly in this country. No one mistakes a theatre for a club, a museum or a railway terminus, and vary it as he may, the architect almost without exception must admit that he has done only that which has been done repeatedly both in and before his time. However, the Apollo Theatre in Chicago is in some respects a departure from the stereotyped conception of theatrical structures in the United States. At least an earnest effort has been made to make it so, both in design and decoration.

The Apollo is situated on a busy corner in Chicago's loop, but the builders determined that its beauty and unity of purpose should not be destroyed by the incorporation within its walls of shops or offices. From pavement to skyline the building is devoted exclusively to the theatre and its patrons—exclusively, that is, save for one odd foible, which will be mentioned later, a small suite of rooms which forms a complete five room apartment dwelling.

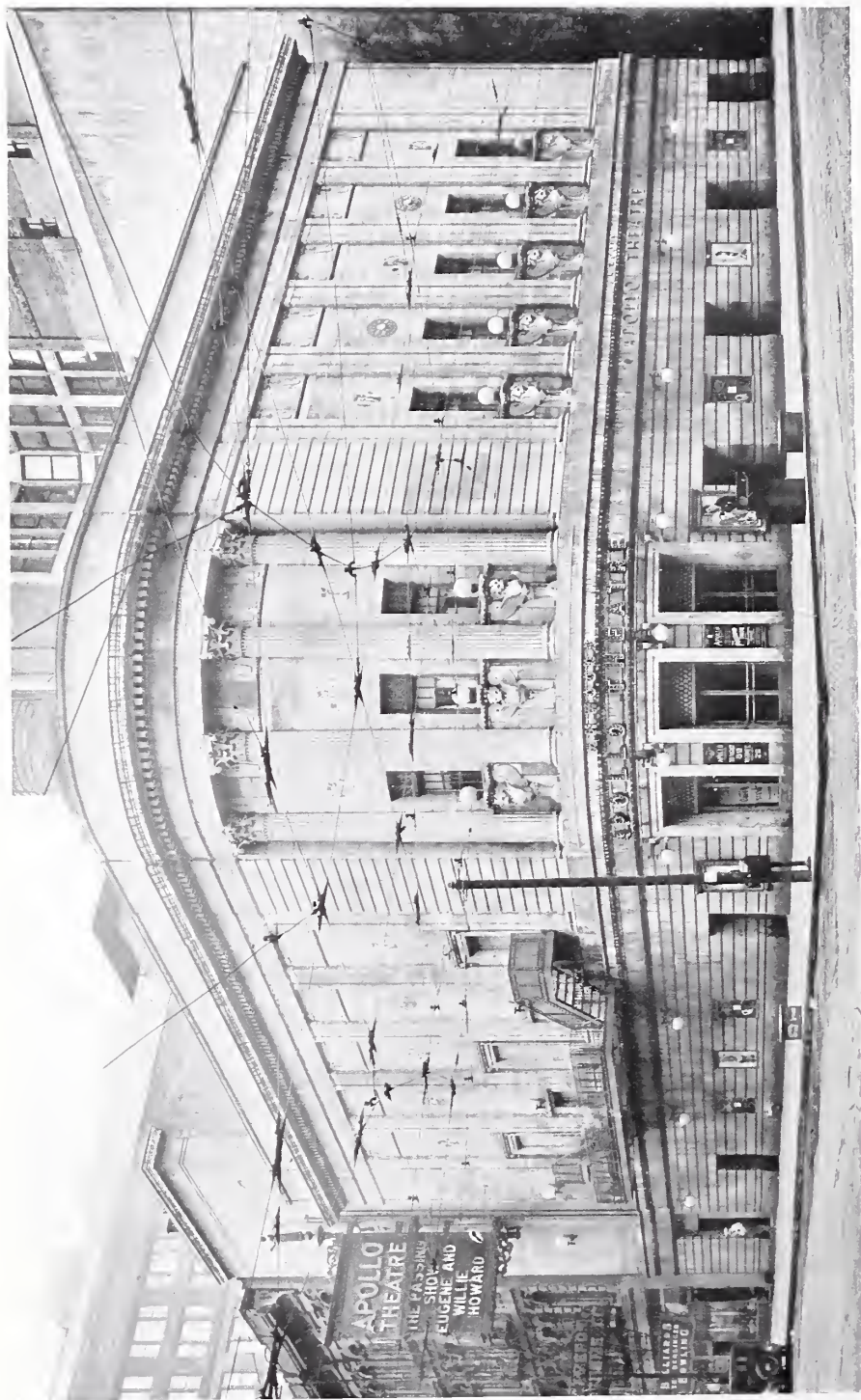
The structure is low in comparison with its sky-scraping neighbors. It is simple in every line and seemingly unadorned until one approaches near enough to observe the carefully placed ornamentation. Yet, with all its air of being there to stay, there is little suggestion of a heavy solemnity incompatible with the more frivolous plays and revues produced on its large stage.

Pompeian and archaic Greek are the predominant motives of the design, which is carried out in gray Bedford stone. There is a colonnade continued in pilasters

set on a rusticated base, the latter about twelve feet in height and pierced by ten door and window openings. Above, windows have been let into one wall and into the corner above the main entrance, the remaining wall having but one opening above the street level. Under these windows are griffins which support the globe lights for exterior illumination. Between the dentils of the cornice are supplementary lights to bring out the details of the frieze, the pilasters and the ornamental cast stone plaques, by Mr. Gilbert P. Riswold, which relieve the blank walls between columns and pilasters. The curved entrance motive is marked by four Corinthian columns surmounted by comparatively simple capitals.

An effort has been expended to make the outside metal work conform to the Greek architectural scheme. For example, too often we see electric theatre signs, which at best are the bane of the theatre architect's life, placed almost anywhere on its façade and designed apparently by a billboard maker. To this rule the sign of the Apollo is an exception, not only in its workmanship but in the fact that its design embodies the Apollo idea and the Greek motives prevalent everywhere about the building. Both the head and the name of Apollo appear on the copper sign.

The treatment of the fire escape, too, was made as novel and pleasing as possible. By building an interior fire stairway of generous dimensions, the necessity for more than one fire escape on the Randolph Street front was obviated and this one escape has been constructed to give the appearance of an ornamental bal-



June, 1923

The Architectural Record

APOLLO THEATRE, CHICAGO, ILLINOIS.
Holabird & Roche. Architects.



The Architectural Record

Detail of Main Entrance.
APOLLO THEATRE, CHICAGO, ILLINOIS.
Holabird & Roche, Architects.

June, 1923



The Architectural Record

June, 1923

Detail of Side Façade.
APOLLO THEATRE, CHICAGO, ILLINOIS.
Holabird & Roche. Architects.

cony of weathered bronze. The counter-balanced section, which lets down to the street, is concealed in the balcony platform and every effort was expended to conceal the awkward parts of the usual fire escape. One exit and a short flight of steps lead to one end of this balcony and at the other end a false door and corresponding steps have been introduced to preserve the balance of the whole structure, which actually enhances the appearance of the façade.

The planning of the theatre was a difficult problem to the architects. The size of the lot is 120 x 102 feet, minus an 11 ft. private alley necessary for fire escapes, exits and stage entrance, and the number of seats was fixed by Mr. A. H. Woods at sixteen hundred. This in itself would have been a difficulty, but in addition there was the element of the very strict Chicago City Ordinance, which, as a result of the Iroquois Theatre disaster, is more severe than that of any other city in the country. As a result the plan is extremely economical of space. In order to accommodate the required number of seats, the foyer has been reduced to a minimum and the usual vestibule eliminated. There is a small vestibule in the circular corner motive but in reality the foyer and the vestibule have been combined.

As one enters the foyer, one notices that it is small but entirely adequate. The floor is a mosaic of the Pompeian type with designs in color on a black background. The wainscot is Belgian black marble, above which the walls and columns are Travertine with occasional accents of lively color. The column capitals and the coffered ceiling are painted in brilliant green, terra cotta, gold and black, after the manner of Pompeian interiors. The box office grille, transom grilles, and the gates leading to the main auditorium are of iron painted green to resemble old Pompeian bronze work.

At either end of the foyer is a stairway leading up to the mezzanine and down to the smoking room and lounge. The latter is the first smoking room for both men and women possessed by any Chicago theatre. Here we find a prevail-

ing buff tint in the walls and ceiling with the ornament picked out, as in the foyer, in color. Soft lights, carpets and furniture are as much in harmony with the Pompeian as modern ideas of comfort will permit. The floor is of marble and the walls are decorated with batiks of Greek design, done by Winold Reiss. Four structural columns, which ordinarily would have made the room unsightly, have been joined to the wall by partitions, making three little alcoves where theatre parties may sit together between acts in comparative seclusion. Panels representing classical scenes adorn the walls of these alcoves as well as of the main room, making the entire effect of the lounge warm and gay. In a niche at one side is a bronze reproduction of the Delphi Charioteer, with a fountain at its base.

When the main auditorium is fully lighted, the effect is one of glowing color carefully restrained by dark hangings. The walls above the mezzanine are buff, below it they are hung in terra cotta velvet to match the seat upholstery. Bronze lamps with parchment shields of dull blue, green, yellow and terra cotta, are set sconce-like along the walls below the mezzanine balcony.

There are but two proscenium boxes, one at either side, at the level of the mezzanine, and they are set in high embrasures from the tops of which fall terra cotta colored draperies, arranged in long folds. The embrasures are framed by Ionic engaged columns.

The rail of the mezzanine balcony and of the boxes is paneled, each panel containing three or four ivory colored figures in low relief on a buff background. The rail of the main balcony is composed of Greek polychrome ornament, the color scheme following that of the coffered ceiling, which is decorated with bands of black, yellow, green, blue and terra cotta. Indirect lighting is used in the main for the ceiling and upper part of the house. It is furnished by hanging bowls, designed after the style of Pompeian lamps. Around the three walls, at the top, runs a frieze painted by Winold Reiss, depicting in brilliant



June, 1923

Side Wall of Auditorium.
 APOLLO THEATRE, CHICAGO, ILLINOIS.
 Helabird & Roche, Architects.

The Architectural Record



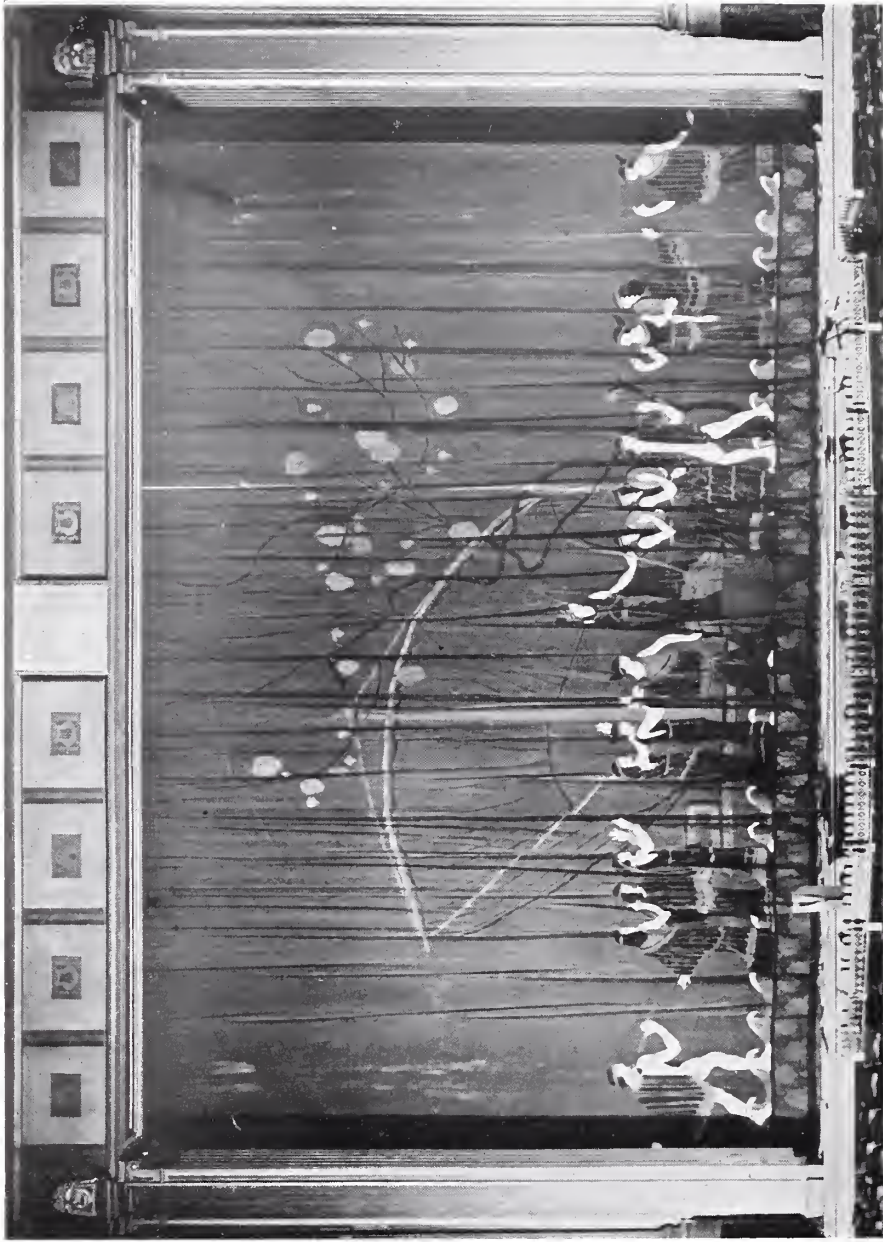
The Architectural Record

June, 1923

Detail of Proscenium Box.

APOLLO THEATRE, CHICAGO, ILLINOIS.

Holabird & Roche, Architects.



The Architectural Record

Proscenium Frame and Curtain.
APOLLO THEATRE, CHICAGO, ILLINOIS.
Holabird & Roche, Architects.

June, 1923



Frieze at Top of Proscenium Wall.
 APOLLO THEATRE, CHICAGO, ILLINOIS.
 Holabird & Roche, Architects.

colors a Greek procession. A series of curved, inverted steps ascends from the top of the proscenium arch to the coffered ceiling and is used not only as an effective piece of ornamentation but also as a ventilation exhaust. The proscenium arch itself is rectilinear and is supported by pilasters of Ionic design. Across the top and flanking an Apollo head, which serves as a keystone panel, are ten panels of formal design done in Pompeian colors on a black background. The same colors constitute the dominant scheme of the curtain decoration. It is of terra cotta velvet, draped in straight folds and is decorated with appliqué Greek figures from the designs of Will Hollingsworth. The proscenium is forty-two feet in width and twenty-eight feet high and the stage depth measures thirty-six feet.

The mezzanine and main balcony are of cantilever construction and bowled like the main floor. The sight lines are good from any location in the house. There are but six rows of seats in the mez-

zanine balcony and it is overhung about twelve feet by the main balcony. There is no gallery, but at the back of the mezzanine are two loges, one at either side and set up above and behind the last row of seats.

Entrance to the main balcony is of the tunnel type and there are two entrances which give on to a center aisle half way up the slope of the seats. There are, of course, adequate fire exits besides. The balcony runs back to the outside wall of the theatre, there being only an aisle left between it and the rear row of seats.

An unusual feature of the balcony foyer, or corridor, is the existence thereon of a five room apartment for the owner. There is an oval dining room with two windows over the main entrance, a reception room, three bedrooms, two baths and adequate closet space. A tiny private elevator leads up to this suite from the main floor.

Exceptionally fine dressing rooms have been provided for the actors. The





Men's and Women's Smoking Room
APOLLO THEATRE, CHICAGO, ILLINOIS.
Holabird & Roche, Architects.

star's dressing room suite consists of a reception room, dressing room and bath. Shower baths have been installed for the other dressing rooms and much effort has been exerted to make the lighting arrangements of these rooms all that they should be, a point often neglected.

The lighting in general is of the most modern type and the fixtures have been designed to carry out the Pompeian keynote. All lights are pale amber in hue and the entire system is controlled by a major remote control stage switch-board. The pilot-board is located on the right side of the proscenium arch and from there the scenery changes are also controlled. The scenery is handled mechanically by an elaborate counter-balance system intended to eliminate the presence of personnel in the fly gallery.

Like most theatres nowadays, the

Apollo has provisions made for the showing of motion pictures and its equipment is complete in this respect.

The ventilation is of the "mushroom" type. The ventilating mushrooms are placed in the floor of the mezzanine and main balcony as well as the main floor and the exhaust for the air is provided by ventilators at the rear of the main ceiling, under the balconies and over and directly in front of the proscenium arch.

The architects have tried to maintain a unity of design throughout, from the exterior electric sign to the main curtain. The color scheme is brilliant, though the atmosphere of the auditorium is one of simplicity. The Apollo is an addition to Chicago's somewhat meagre Rialto, and will take its place among the better of the public and semi-public buildings of the city.

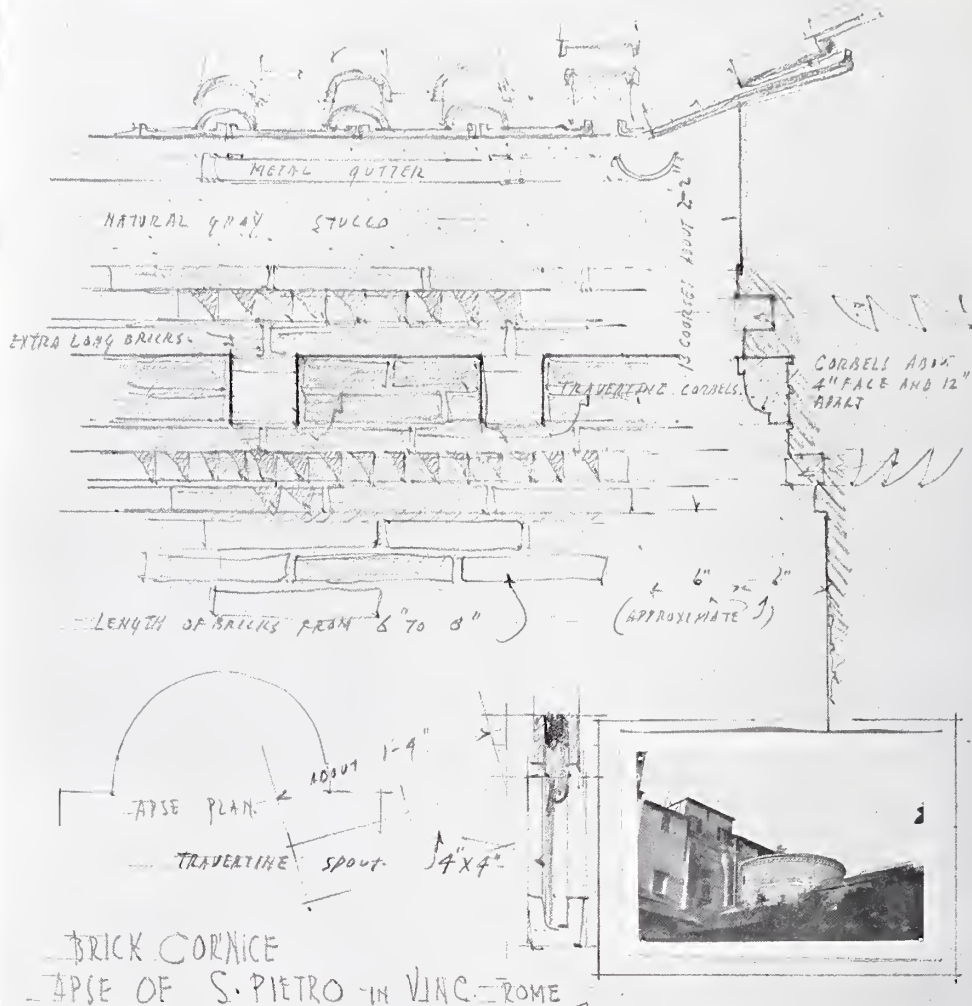


PLATE VI. In the apse of the church of San Pietro in Vincoli in Rome the cornice shows an interesting use of extra long bricks which span from corbel to corbel. The saw tooth carved bricks give almost a feather edge at the points.

SOME NOTES ON COMMON BRICK WORK FROM ITALY



Sketches by Louis C. Rosenberg
Text by Lewis E. Welsh

PART II

It is an extremely hazardous undertaking for anyone to make the statement that one town is better than another, even when that statement applies to places in America, but when such a statement is made regarding the cities of Europe it seems almost like sacrilege. And yet, how often one hears the European tourist make sweeping declarations to this effect. Of course, one realizes that such opinions are colored by the quality of the *pension*, the weather and other agreeable or disagreeable experiences encountered. Distinction in the interest felt in the various cities can be made by students with perfect propriety, however, and to the student of brick work, the towns of Northern Italy are undoubtedly the ones most deserving of his time and attention.

Bologna, Ravenna, Brescia and Milan, all have their monuments—all different. In Ravenna, for instance, is that wonderful fifth century Baptistery of the Orthodox, an octagonal brick building with a domed roof. As a cornice detail the double arch between piers is beautifully proportioned and the use of simple corbel bricks to carry the arches instead of the customary stone or molded brick corbels, is noteworthy. The windows of this building are slabs of alabaster set in brick openings.

Typical Byzantine brick work is found in the church of San Vitale, also in Ravenna, where the bricks are really flat tiles eight inches by eleven inches by one and three-fourths inches thick, set in mortar joints not less than one inch wide and sometimes as wide as the bricks themselves.

In Brescia one observes quite a different use of brick; it is used for ornament,

and stone is reserved for the purely structural portions. In the Rotonda at Brescia the main wall is granite ashlar and the cornice is brick with stucco panels.

The Broletto, or Town Hall, of the twelfth century, has a cornice made up of molded brick and unglazed terra cotta. This splendid use of molded brick leads one to wonder why we have not, in America, given more thought to the use of molded brick. It would appear that this present indifference results from its over use and bad use in the Victorian period. Most of the molded brick then used was stock of atrocious design and mechanically perfect surface—the fault of the manufacturers, but equally the result of the architects' bad taste. The increasing interest in molded and ornamental brick for exterior work would seem to forecast its more general use, which will make it profitable for manufacturers to produce well designed stock molded brick of varied colors and surfaces. The designers of molded brick would do well to take very seriously the brick work of the Byzantine period.

The famous brick leaning towers of Bologna are familiar to all architects and any discussion of Italian brick work would be incomplete without reference to these interesting, if somewhat dramatic, examples of mediaeval competition. More important as works of art are the arcades, palaces and churches of this fascinating city. Brick design seems to have followed a pattern of squares rather than curves. While the main arcades which line the streets are of course arches, in the cornices, where in other cities we often find plain or interlacing arches, in Bologna the bricks form

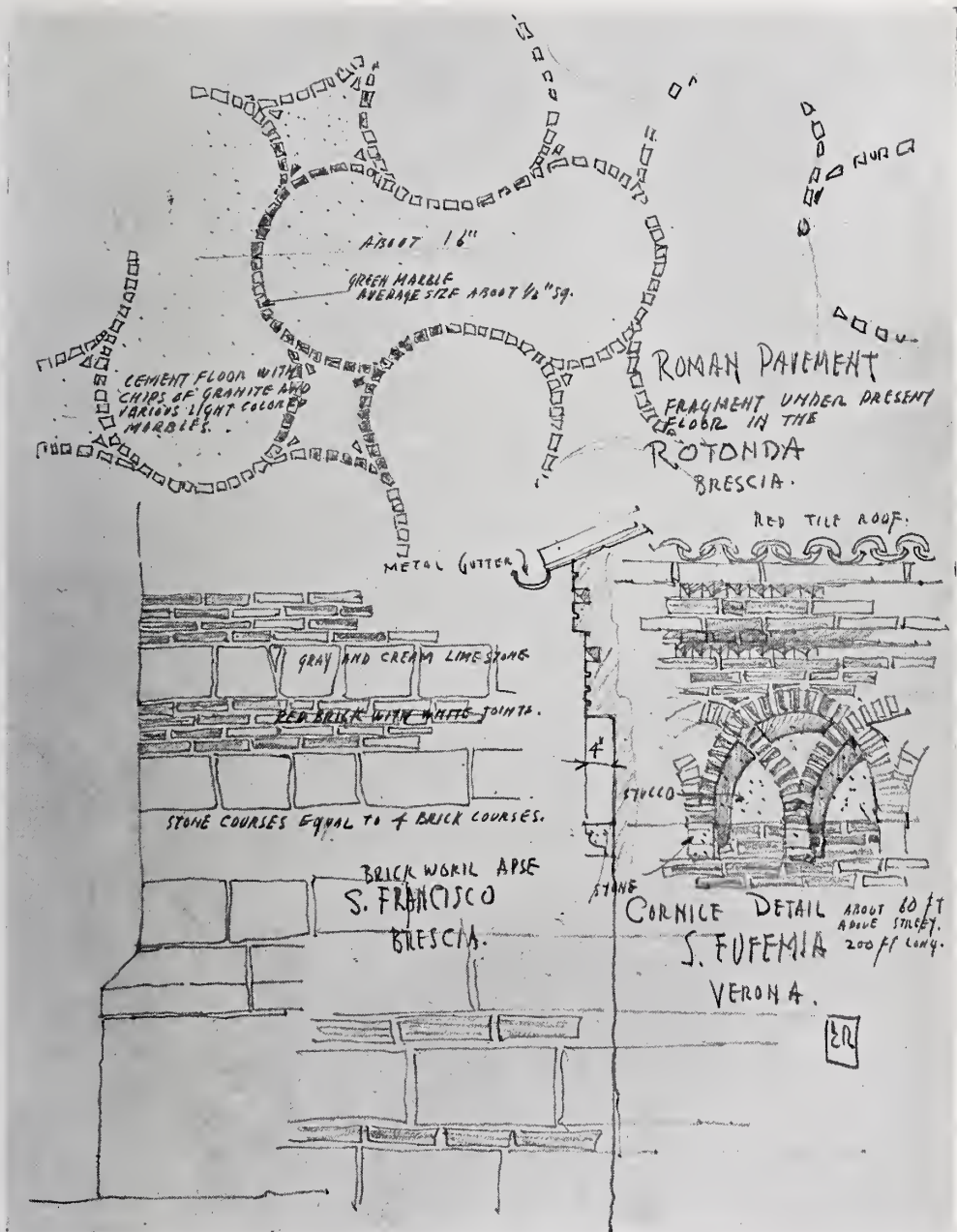


PLATE VIII. The Rotonda in Brescia was constructed upon the foundation of a Roman building. A fragment of the floor is here shown; this is of cement with inserts of various colored marbles. In the church of San Eufemia in Verona the use of interlacing arches is pleasing, the arches being made more pronounced by the stucco back.

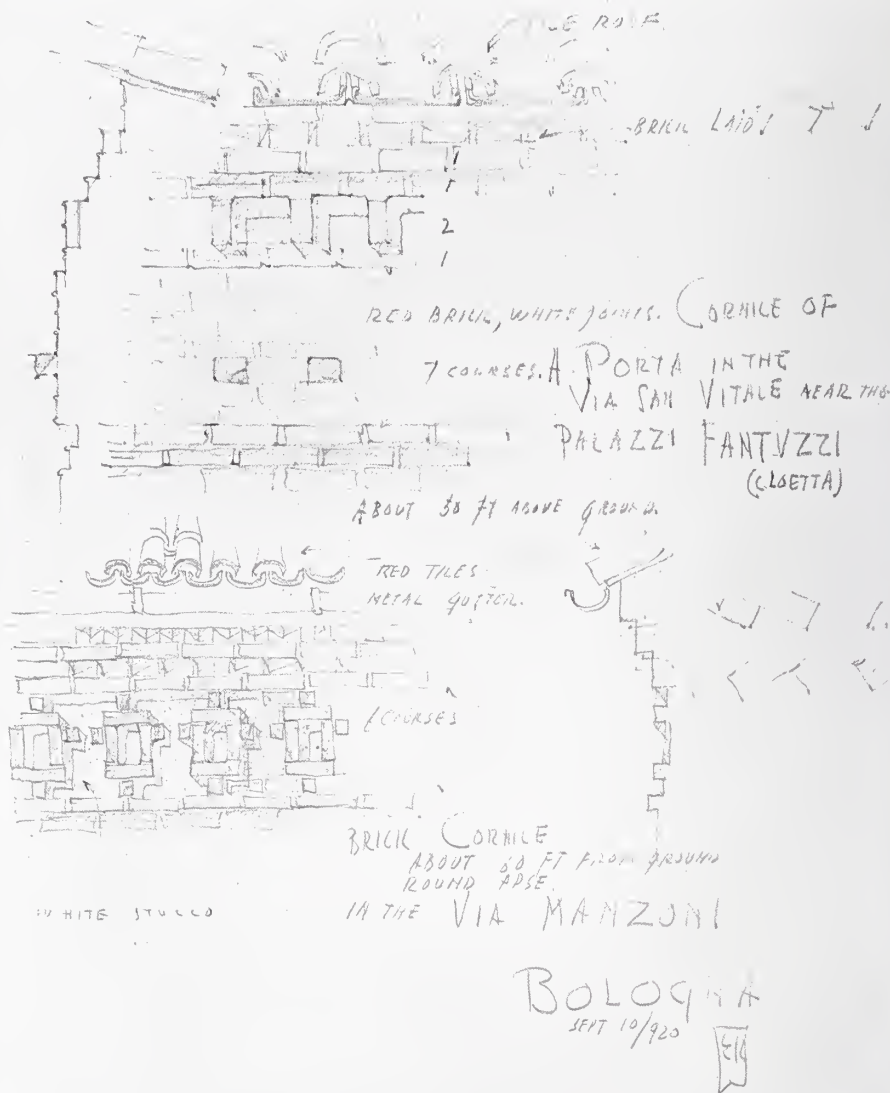


PLATE IX. The cornices of these two buildings in Bologna show an extremely simple use of brick with no special relieving feature. The set back of a brick in the center of the wide frieze in the Palazzo Fantuzzi adds interest without breaking the scale by panelling or the introduction of projecting lines.

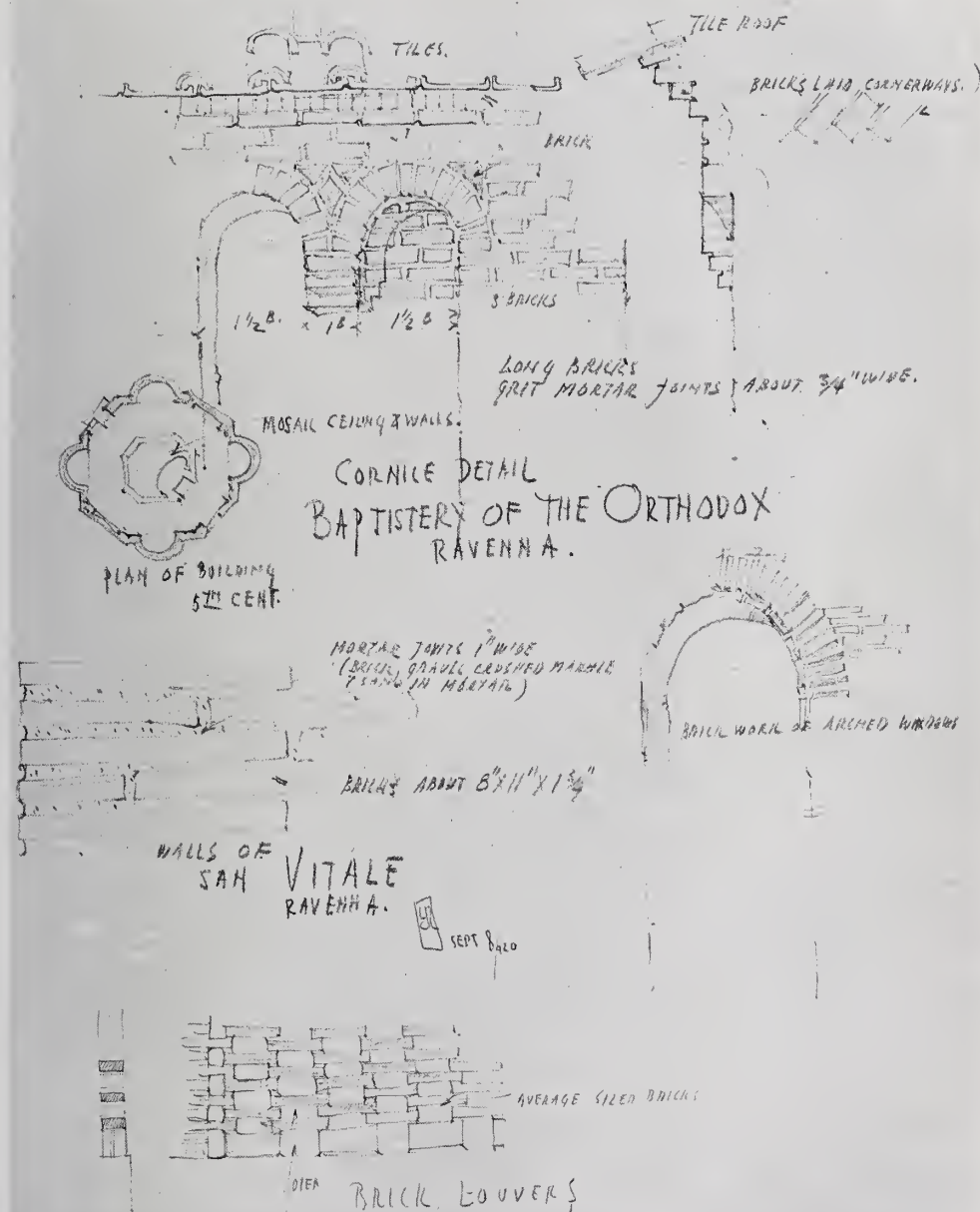


PLATE X. The brick work of Ravenna is noted for its excellence and the cornice and wall treatment of the Baptistery of the Orthodox show a refinement seldom found in such early buildings. The stretcher bricks around the window openings is quite unusual. In the walls of San Vitale the joints are almost as wide as the bricks themselves, giving a very light effect in color.

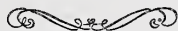
squares in a plain stucco frieze. The wall spaces are often ornamented in herringbone, basket, and square patterns, as in the church of Sante Sepolcro.

The precedent of the simple American Colonial brick work has been followed in the main faithfully and successfully for a number of years, but when we compare the patterns in brick work of the old Italian, French and Spanish with the patterns used by the modern designer, it hardly seems possible that there can be the slightest relationship. What with our passion for "something new," the ter-

rible recent precedent of the Victorian age, and the deep-rooted indifference of manufacturers (which is at last being somewhat changed), the surfaces and designs have been pretty bad. The fondness of many architects for bizarre jointings and colored mortar has not helped matters any. Within the past few years, however, there has been a definite and determined movement among architects to produce something in the way of brick work which will not be unworthy of the noble precedent to which we have such ready access for study and inspiration.



*Octroi, Barrière, Porte Louveciennes, Versailles
House, No 16 Rue d'Angoulême, Versailles*



*By Harold Donaldson Eberlein
and Leigh Hill French, Jr.*

THE PAIR OF LITTLE HOUSES, built for the accommodation of the municipal customs officers, and flanking the Porte Louveciennes of Versailles, afford a fascinating instance of French small civic architecture, fertile in material that might profitably be applied in the design of modest suburban houses in our own country—that is, if the architect and client are desirous of achieving the kind of urbanity that might be described as “sophistication without five servants.”

These customs posts were built at the beginning of the eighteenth century and present an excellent example of the Directoire Style. The internal arrangements, of course, are not suited to ordinary domestic requirements and there are no garden provisions to speak of. Nevertheless, there is the kernel of suggestion that may very readily be adapted to current needs, both in the matter of detail and composition. The walls are stuccoed and painted cream color.

The little house at Numero 16 Rue d'Angoulême, is a dwelling without history or any particular local significance. Nevertheless, it challenges attention as a most agreeable bit of composition that might well be appropriated and turned to account on the score of suburban house design. There are certain whimsicalities about the structure that intrigue one's interest—(such, for instance, as the chimney at the gable and purposely off centre)—but afford no particular inspiration. All the same, a minute inspection of this tiny

establishment will repay the time spent upon it. The details are pure and pleasing and convey the impression of modest elegance and poise. In this connection it should be noted that the wrought iron grille of the door and several other bits of ironwork, are modern disfigurements.

Although the garden, in its present state, is squalid, disorderly and overgrown, sufficient traces of its original arrangement are still discernible to enable one, without much difficulty, to reconstruct a plan that was once charming and adequate for an unpretentious dwelling. Fortunately the original stone block paving before the south or garden front of the house is still in good preservation. The blocks are six inches square.

One of the pleasantest features about the house is the fact that it completely turns its back to the street and keeps its intimate outlook for the garden. This device, along with the high garden wall, ensure entire privacy, although the town is closely built up on all sides.

The stone walls are stuccoed and painted cream color, with the exception of the blank window niches on the two streets, which are painted grey to obviate the impression of blank walls. At first sight one might easily imagine that these had once been windows that were subsequently blocked up, but examination of the interior shows that windows were never intended there, and the bit of architectural pleasantry evinced in the niche treatment is purely a concession to the feelings of passers-by.



The Architectural Record.

North and West Fronts.
NO. 16, RUE D'ANGOULEME, VERSAILLES.

June, 1923



The Architectural Record.

Garden Front, South.
NO. 16, RUE D'ANGOULEME, VERSAILLES.

June, 1923

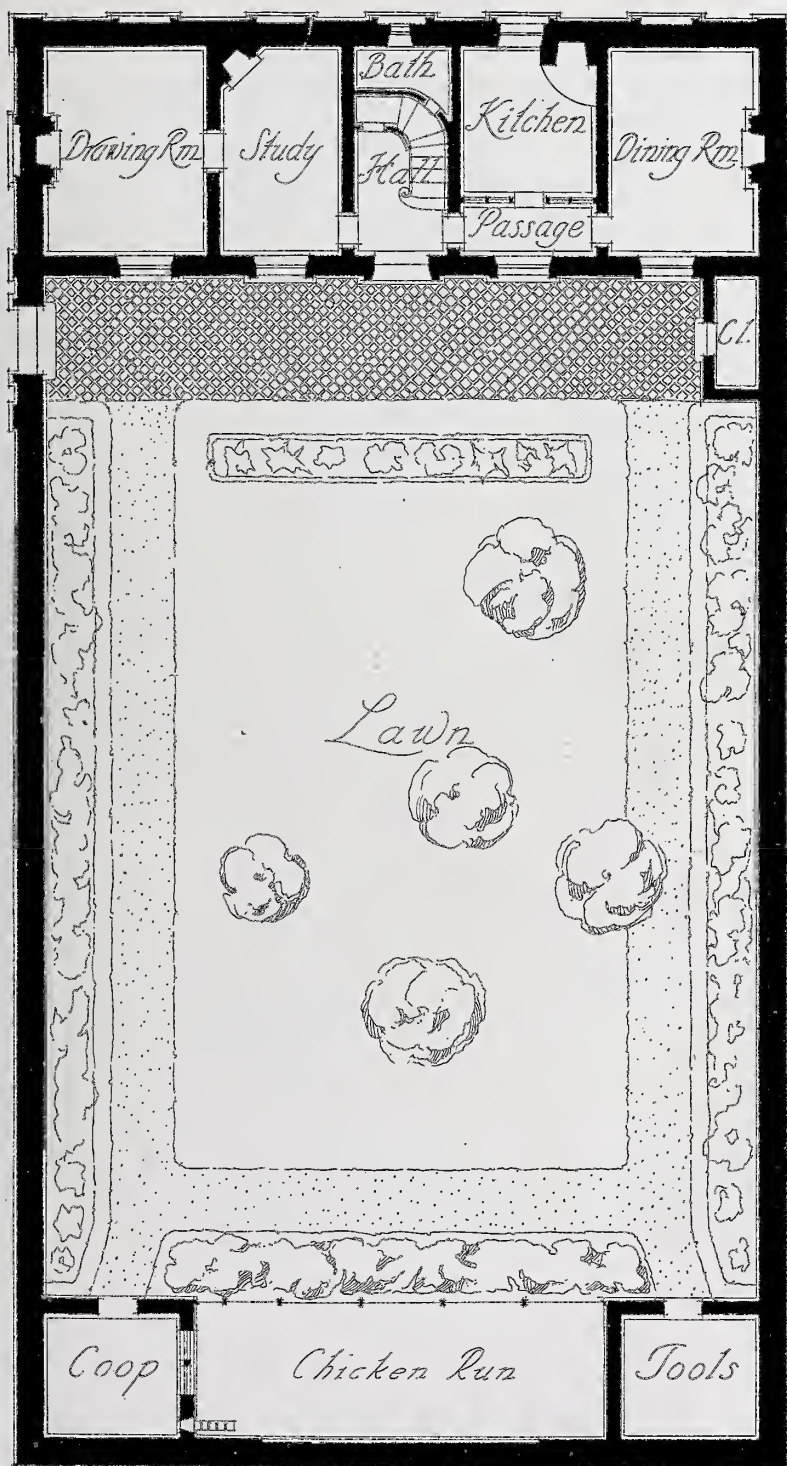


The Architectural Record.

June, 1923

Entrance Gateway.

NO. 16, RUE D'ANGOULEME, VERSAILLES.





Elevation

*Entrance Doorway
16 Rue D'Angoulême
Versailles*

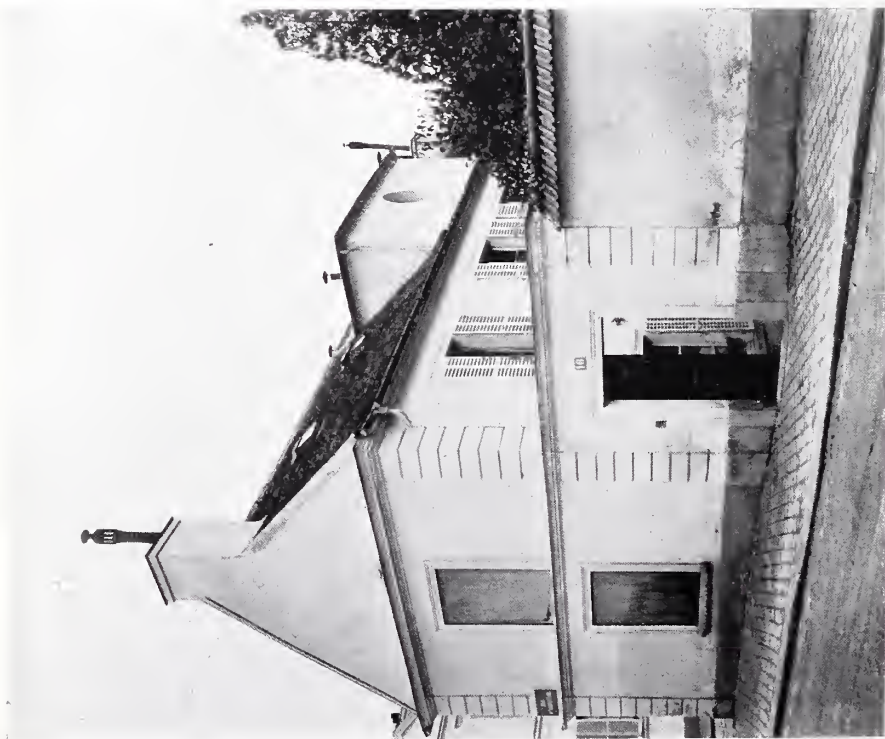
Scale



The Architectural Record.

June, 1923

House Door, Garden Front.
NO. 16, RUE D'ANGOULEME, VERSAILLES.



The Architectural Record.

West Front.
NO. 16, RUE D'ANGOULEME,
VERSAILLES.



June, 1923

East and North Fronts.
OCTROL. BARRIERE, PORTE LOUVECIENNES,
VERSAILLES.



Plan of Ground Floor

*Octroi-Barrière
Porte Louveciennes
Versailles*

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Scale



The Architectural Record.

June, 1923

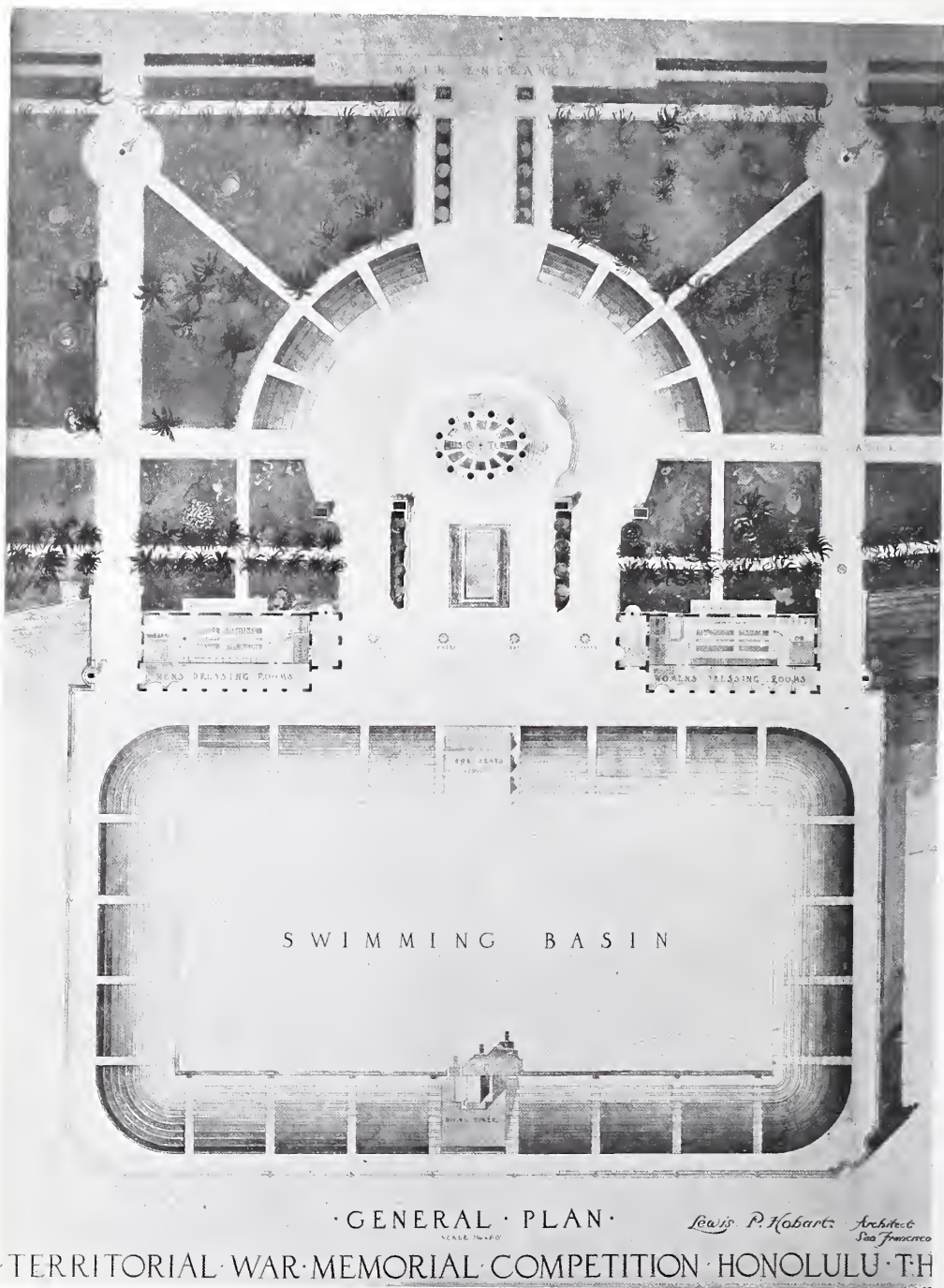
Details of East Elevation.
OCTROL, BARRIERE, PORTE LOUVECIENNES, VERSAILLES.



The Architectural Record.

June, 1923

South Front Within Gate.
OCTROI, BARRIERE, PORTE LOUVECIENNES, VERSAILLES.



The Architectural Record.

June, 1923

PRIZE WINNING DESIGN.

Lewis P. Hobart, Architect.



TEMPLE OF MUSIC *and* WATER COLOSSEUM ~



MEMORIAL PARK, WAIKIKI BEACH, HONOLULU

By
George Burnap

FOUR YEARS AGO in April the legislature of the territory of Hawaii provided for the acquisition of beach property at Waikiki in Honolulu for the creation of a Memorial Park. Two years later the legislature further provided the sum of \$250,000 for the purpose of constructing a memorial at Memorial Park, Waikiki, "to the men and women of Hawaii who served during the great war." An architectural competition for the design of the memorial was immediately held by the Territorial War Memorial Commission, consisting of three members appointed by the Governor, and in July of last year the prize was awarded for the best design.

The successful competitor was Lewis P. Hobart, of San Francisco, graduate of the Paris Beaux Arts, for ten years practicing architect in New York City and since the earthquake in 1906 established on the western coast. Second place was awarded to Albert Kelsey, of Philadelphia.

The location of the Memorial Park is unique, situated directly on the seashore and separated from the existing Kapiolani Park by Kalakaua Avenue, a broad boulevard running from Honolulu to Diamond Head. Nearby to the north are the public baths and aquarium. On the other side of the boulevard are the Zoological Garden, a polo field and tennis courts.

The site of the War Memorial for the American Legion within the newly acquired area is a beautiful and colorful one with park foliage and green mountains as background in one direction, and the deep blue of the tropical waters with white clouds along the horizon in the other

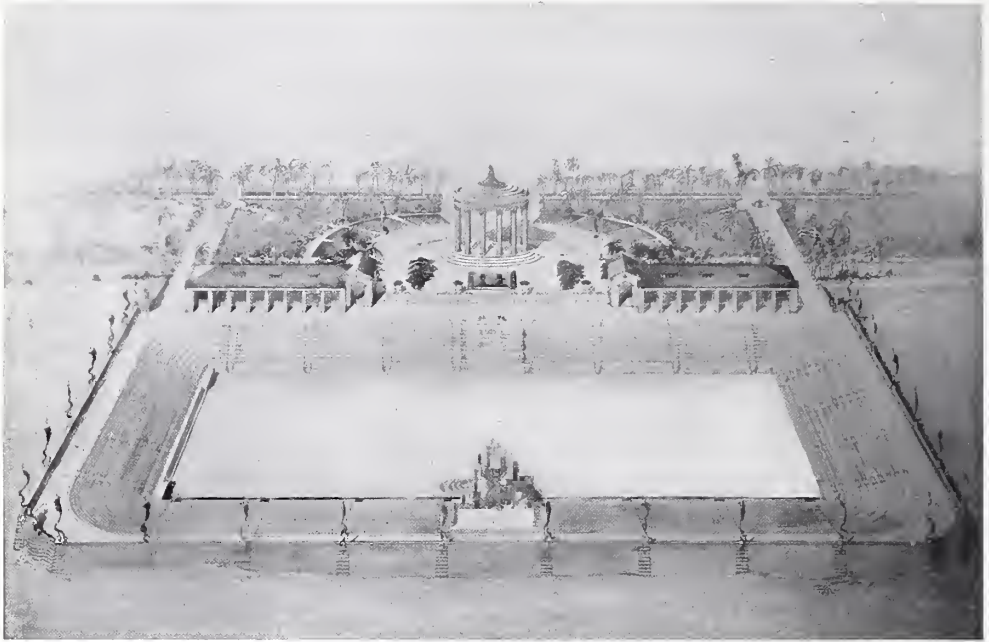
The competition program calls for a natatorium not less than 100 meters long, with dressing rooms for both men and women, to be built over a channel already dredged in the coral formation at Waikiki Beach, opposite Kapiolani Park, and also for a temple of music in the park adjacent to the natatorium.

The problem demands that the various elements be tied together, the temple of music kept in composition with the natatorium and the entire design in harmony with climatic conditions where shade is extremely desirable.

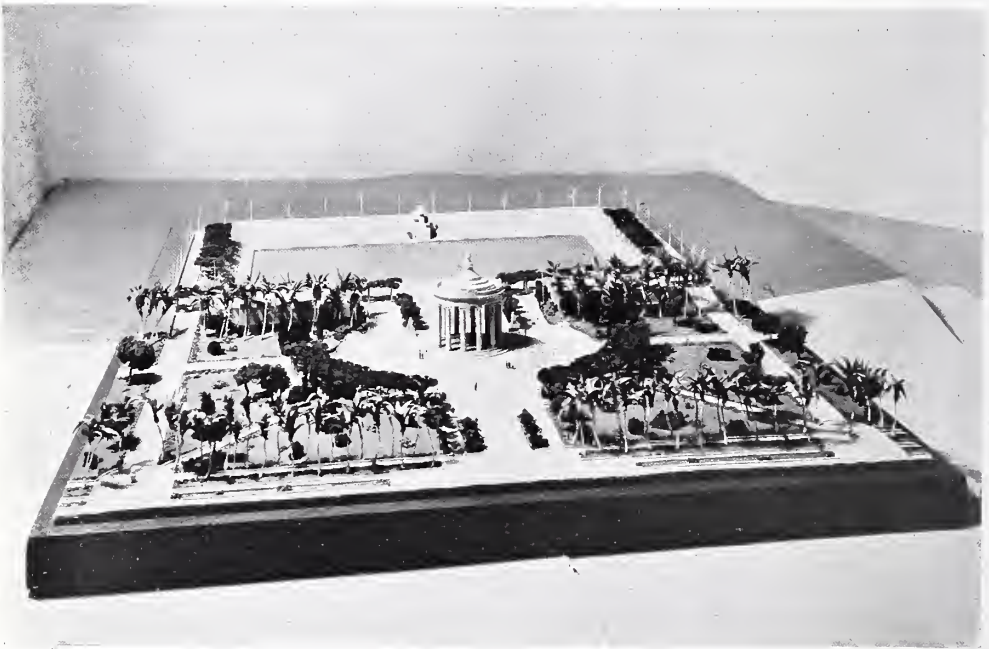
Both of the premiated designs herewith illustrated show excellence of scheme and presentation. The drawings of Mr. Hobart have been rendered since winning the competition, which called for line indication. The conditions of the program were so closely drawn and factors of site so fixed as to bring about close similarity in the designs submitted.

Mr. Kelsey's plan gives architectural prominence to twin bath houses, designed with a vis-à-vis and pavilions in scale with the temple of music and disposed as a portal to the water colosseum; the area of the park is somewhat minimized by introduction of a "circus green" and lateral gardens, spirited though these features would be in themselves if given the same care to exquisite detail and climatic quality of architectural embellishment that characterize Mr. Kelsey's Pan-American garden in Washington. Mr. Hobart's plan shows uninterrupted approaches to the natatorium, no partitioning of area and incidental seating accommodation encircling the temple of music. His conception undoubtedly calls for less expenditure than that of Mr. Kelsey.

The accepted design of Mr. Hobart, as



Perspective.



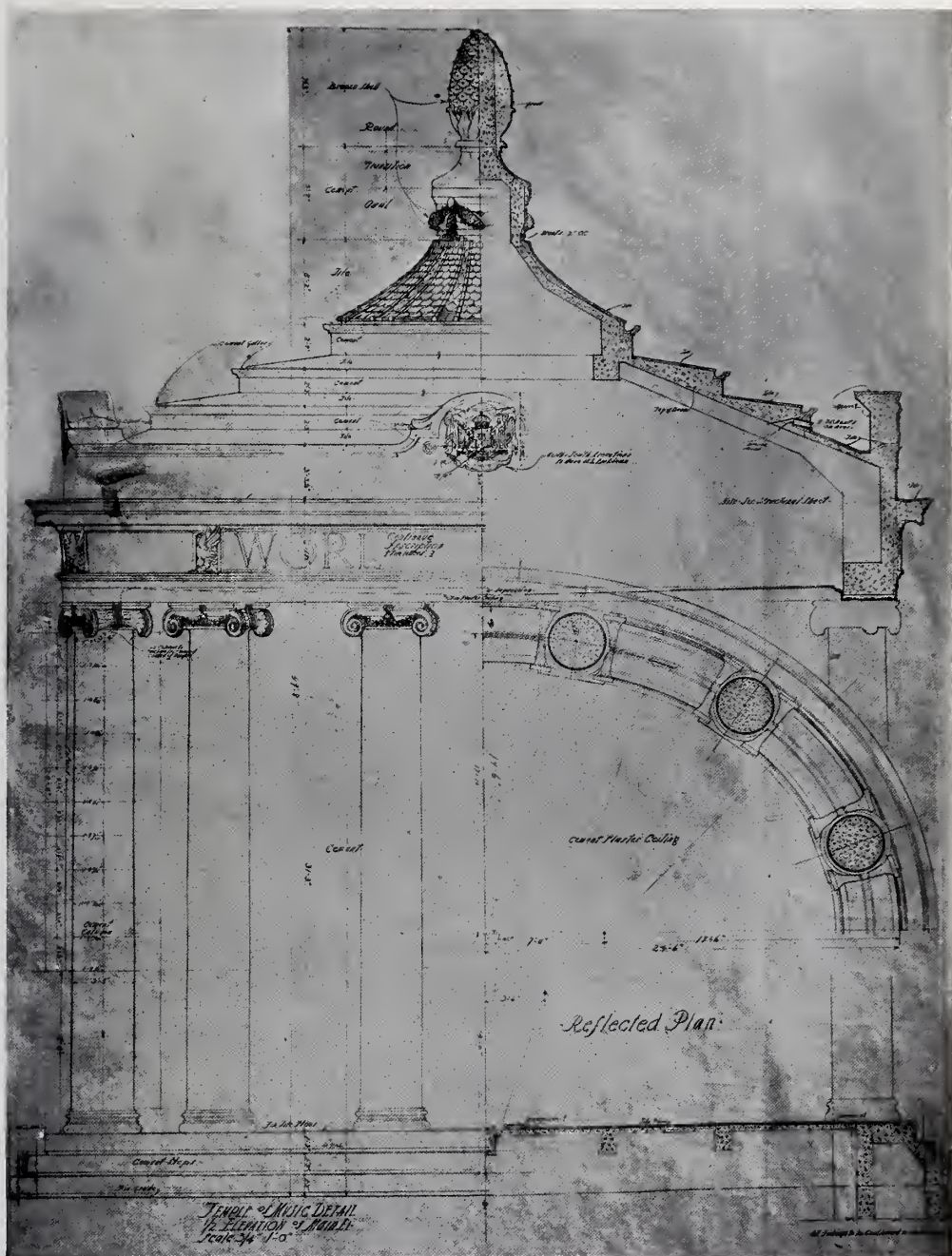
The Architectural Record.

June, 1923

Model—Prize Winning Design.

TERRITORIAL WAR MEMORIAL COMPETITION, HONOLULU.

Lewis P. Hobart, Architect.



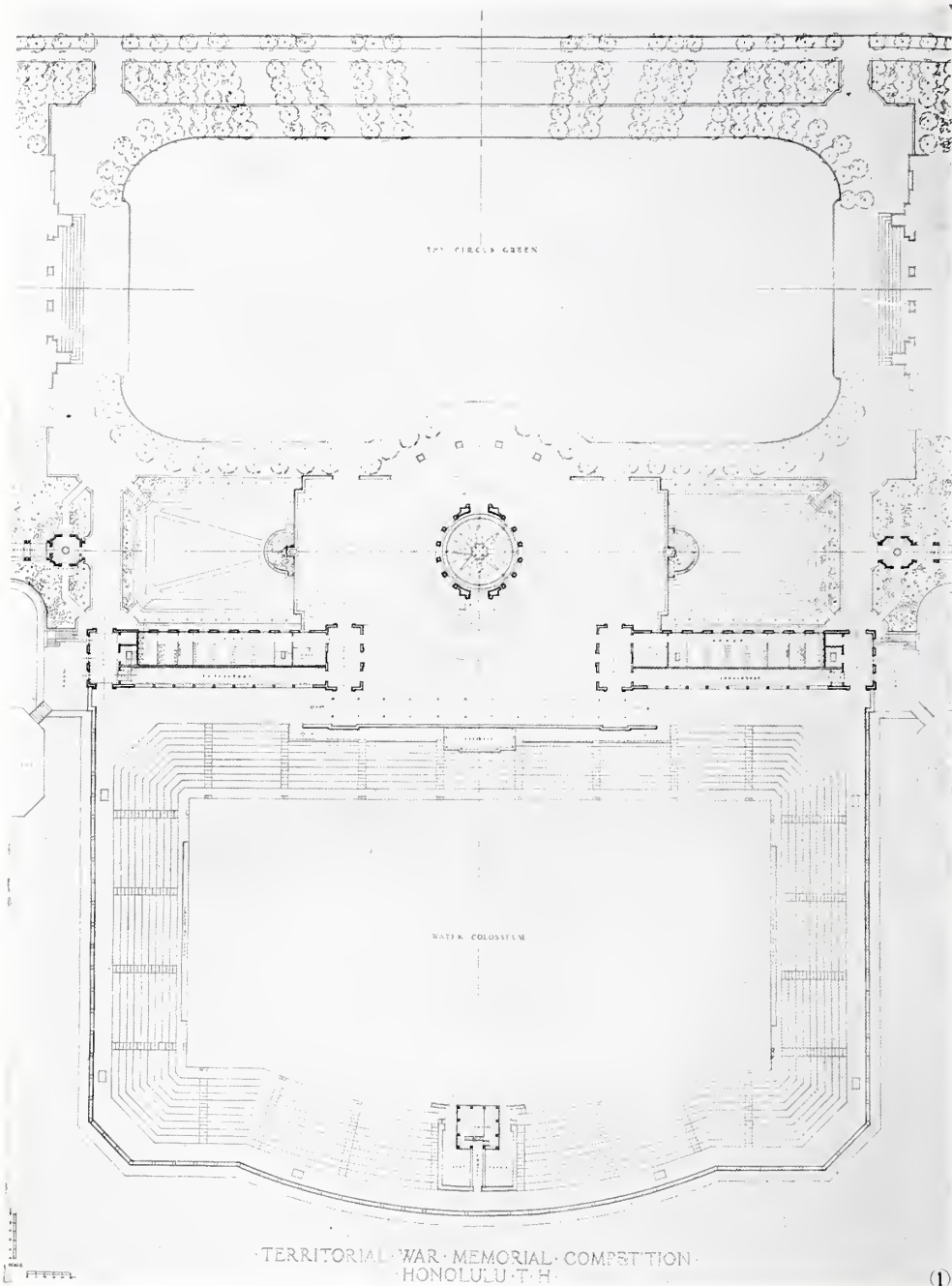
The Architectural Record.

June, 1923

Scale Detail of Temple.

PRIZE WINNING DESIGN, TERRITORIAL WAR MEMORIAL COMPETITION, HONOLULU.

Lewis P. Hobart, Architect.

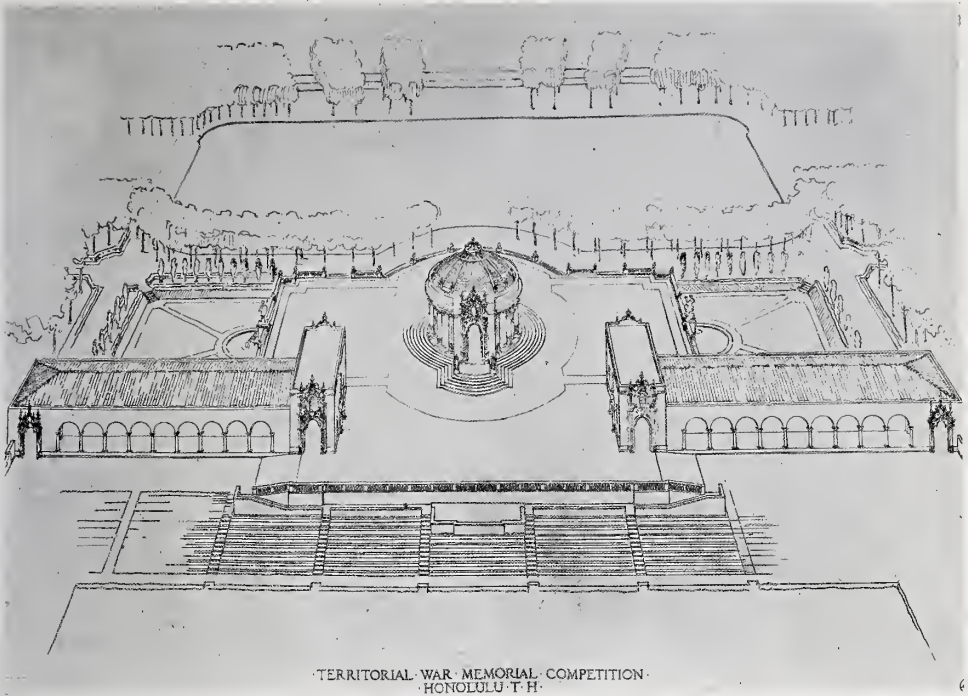


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The Architectural Record.

June, 1923

SECOND PRIZE.
Albert Kelsey, Architect.



TERRITORIAL WAR MEMORIAL COMPETITION.
HONOLULU, T. H.

PERSPECTIVE.

Albert Kelsey, Architect.

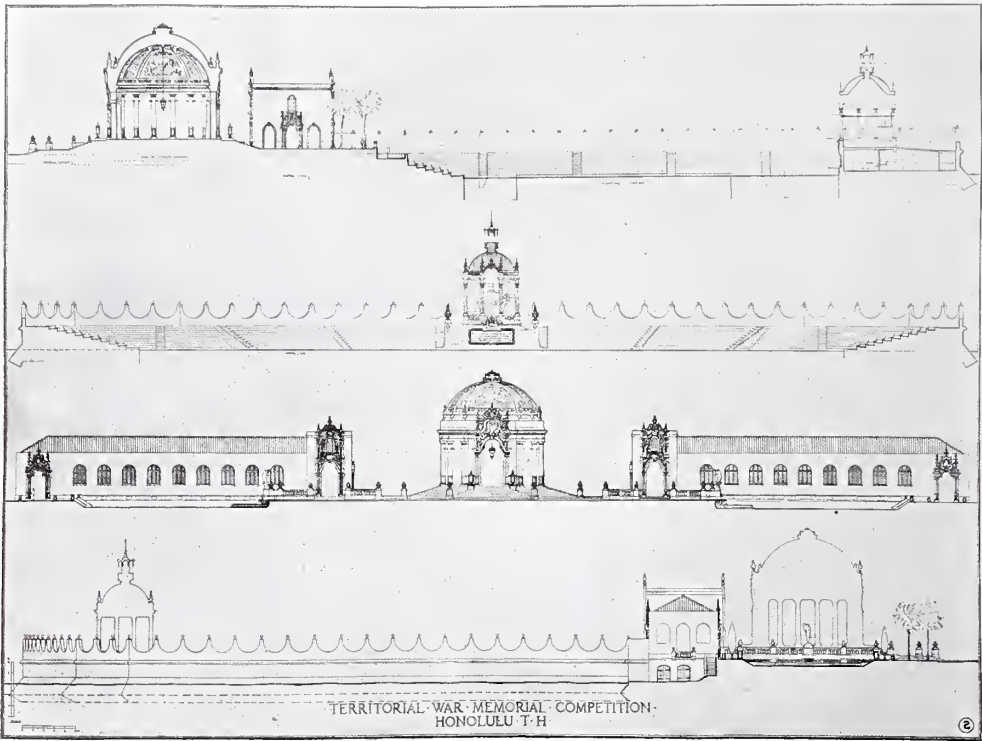
revised for execution, provides for a natatorium of concrete construction 330 feet long and 150 feet wide, surrounded by tiers of seats ample for 6,500 spectators. There are starting platforms 14 feet wide at either end. The diving tower is also of concrete—the height being determined by the rules of the Athletic Association. The promenade is protected from the sea spray by an overhung outer wall below the parapet. Besides the broad steps that approach the temple leading to the general level of the public space of the natatorium there are four ramps that give easy access to the promenade.

The sea water in the pool will be kept constantly fresh by the flow through openings at either end, which is checked so there will be no current. There is a rise and fall of the tide at Honolulu of only twenty-two inches. There are two advantages in building the pool over the channel—extra depth of water in the pool and shallow water where are placed

the foundations for the seating.

In further developing the scheme with the authorities at Honolulu, it was decided to make the natatorium for Olympic games only. These professional meets will be held only at night, at which times the pool will be illuminated by lights strung across the pool from cables on removable poles. When there is no professional swimming the general public will be allowed to use the pool, there being the public bath with dressing rooms adjacent.

The model of the memorial as it will be constructed shows a subordination of the flanking bath houses which had conspicuous place in both of the winning designs. Dressing facilities are provided in open sheds behind high enclosing walls, with small gardens inside these walls. The men's bath house will accommodate 150 men and contains showers and toilets, with alcoves for the various swimming clubs. The women's bath house contains the same accommodations for 50 women.



DETAIL DRAWING.
Abert Kelsey, Architect.

also space for an electric control room.

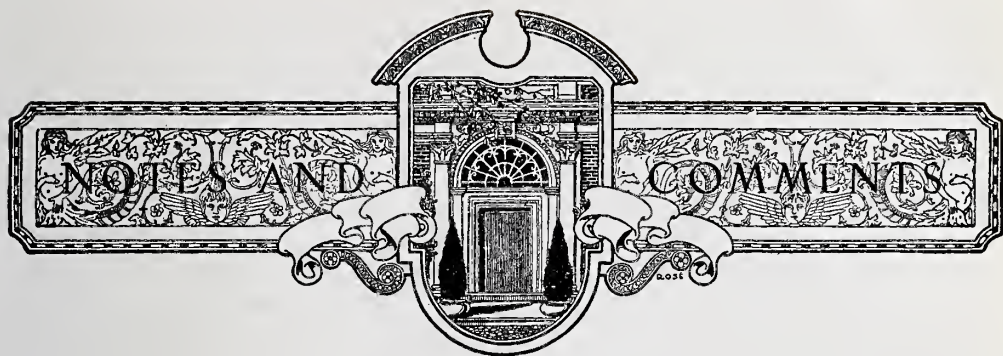
The temple of music is of concrete construction, oval in plan, 40 feet in diameter on the main axis and 50 feet on the other dimension. The total height is 70 feet. The finial is of bronze in the form of a pineapple, with the upper portion of the roof in tile. There are medallions on the parapet, the two on the main axis bearing the coat of arms of Hawaii and the two on the secondary axis that of the United States. There will be a hung ceiling of hard plaster, slightly convex to avoid the sound being caught in the dome, to be covered with canvas for painted decoration. The floor of the temple is tile in colorful pattern; in the center is a bronze plaque of the emblem of the American Legion. The temple will be lighted from the floor so as to illuminate the decorated ceiling and also by side lights behind the plaques that will pick up the bronze and tile top.

The planting will consist of two rows

of palm trees as shown on the photographs and drawings; these already exist on the site. There are also already on the site two very beautiful banyan trees and their preservation with the placement of others to continue the north and south walls is a part of the plan. The low, flat trees planted for shade are hau trees which grow profusely in the islands and are well adapted for this purpose, being used at several other places at Waikiki Beach.

The work is in charge of Lyman H. Bigelow, Superintendent of Public Works for the Territory. Mr. Hobart is retained as supervisor of construction.

The memorial when completed will become a chief object of interest in Honolulu and, following the construction of the Steinhart Aquarium nearing completion in Golden Gate Park by the same designer, will identify the name of Lewis P. Hobart prominently in the field of park architecture.



**Butler & Rodman
Win First Prize
in The Modern
Hospital's Small
Hospital Competition.**

Announcement of the awards in The Modern Hospital's international small-hospital competition is made in the May number of that publication. The competition was intended to be the first step in a systematic, co-operative

study of small-hospital architecture, and has created a wide interest both in the architectural and in the medical profession. Progress in the construction and upkeep of large hospitals, complete in all the essentials demanded by modern science, has been notable in cities of the first rank. However, little attention has been given to the development of self-contained small hospitals, and the lesser towns have been obliged to transport their sick to the nearest large city or depend upon the inadequate facilities of buildings antiquated in plan and equipment.

The present competition was inaugurated by The Modern Hospital with a two-fold purpose in view; first, to stimulate the building of small hospitals of maximum efficiency and worth of design at moderate cost, and second, to develop plans combining simplicity of design and good taste, with a compact arrangement of the various departments, the plans to be available for the use of trustees and directors of small-size hospitals.

The requirements of the hospital as stipulated in the general program were that the building should consist of not less than thirty nor more than forty beds and should provide for private and semi-private rooms, women's, men's, maternity and children's wards, with variations in the number and capacity of each; separate service units for private and ward patients, with at least one complement on each floor; three veranda spaces; an operating department, consisting

of operating room, doctors' rooms, nurses' workrooms, x-ray rooms, laboratory, etc. The service units—kitchen, laundry, boiler room, storage room, etc.—were likewise to be included in the one building. Provision was also to be made for future expansion.

The jury of award, composed of Dr. S. S. Goldwater, of New York; Clarence H. Johnston, of St. Paul; William Buck Stratton, of Detroit; Asa S. Bacon, of Chicago, and Miss Adelaide M. Lewis, of Kewanee, Ill., met in Chicago on March 5-7 and selected the five designs they judged most meritorious.

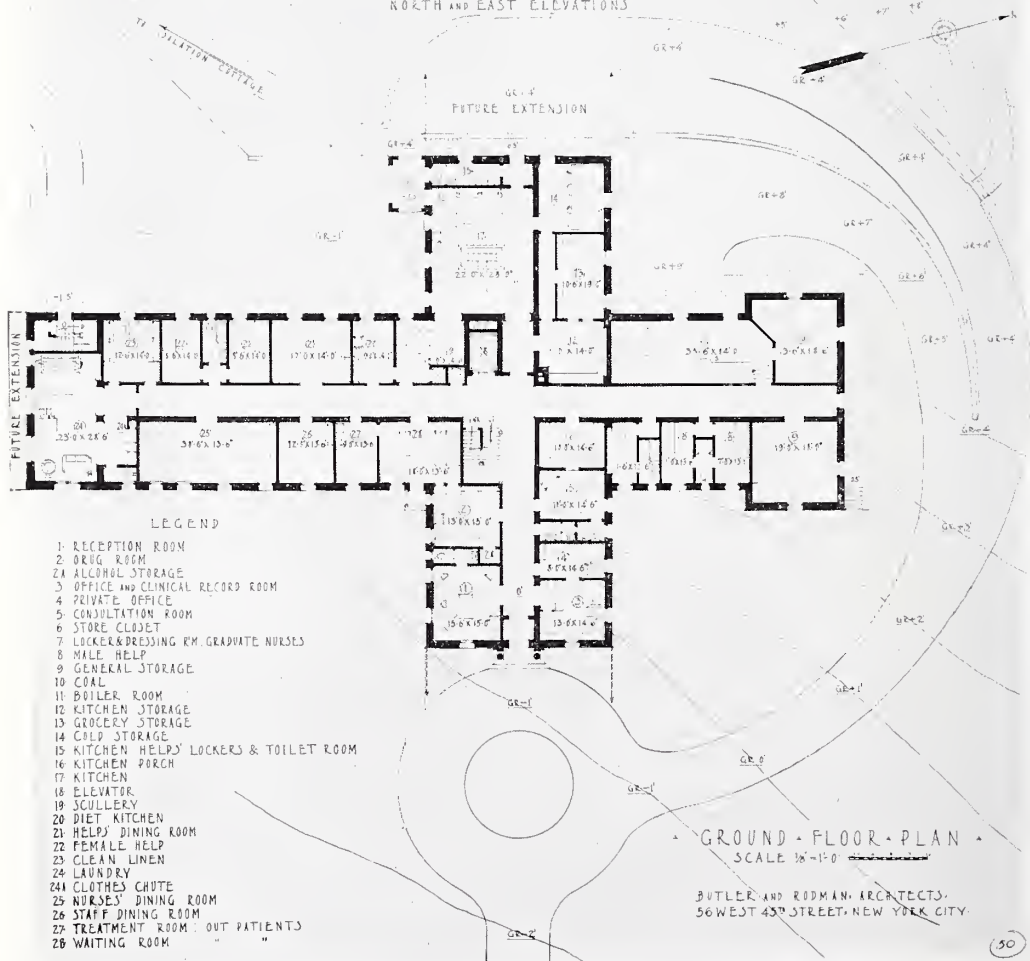
The first prize was awarded to Butler & Rodman, of New York City. Mr. Charles A. Butler, senior member of the firm, is known as an authority on hospital construction, having spent several years in this work in France during the war, after winning his experience and recognition in this country.

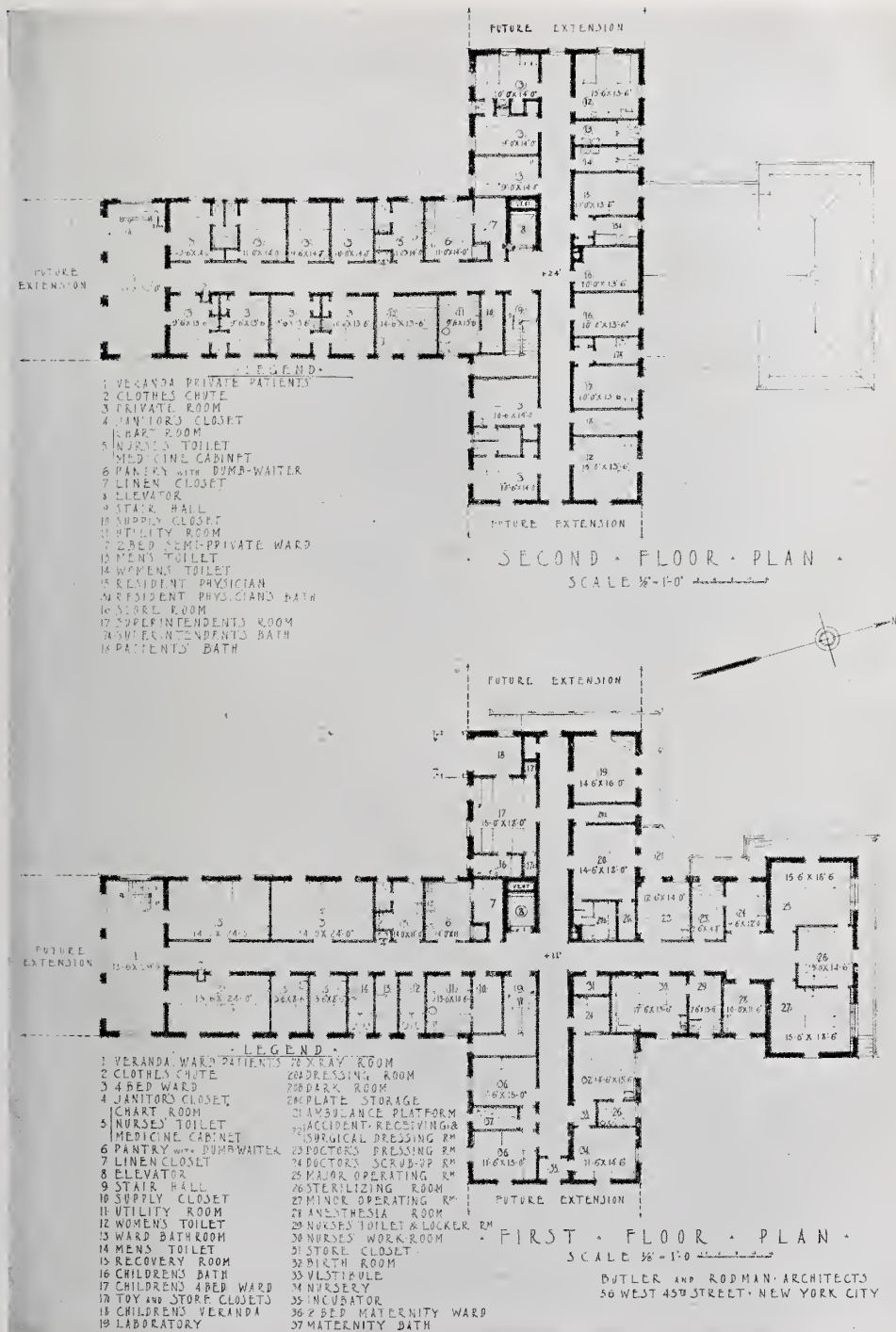
The plan by Butler & Rodman provides an east, west or south exposure for every patient's room, and permits (1) the central location of stairs, elevators and service rooms; (2) the segregation of the different departments, and (3) future expansion in three different directions.

The architects selected a site on ground rising gradually toward the northwest, placing the business section and the admitting and out-patients' section in the basement, on the east, and the ambulance entrance on the main floor level. Since the service departments could not be housed in another building, it was necessary to place them in the least objectionable locations. Reference to the plans reproduced here will show the method of disposing of them, the kitchen under the children's ward and the laundry under the main airing balcony. Each department has been so arranged that it can be approached without disturbing the activities in any other department.



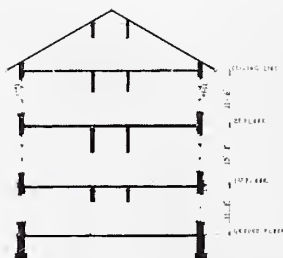
PERSPECTIVE VIEW
NORTH AND EAST ELEVATIONS







• SOUTH ELEVATION •
SCALE 3/8"=1'-0"



• SECTION •



• WEST ELEVATION •
SCALE 3/8"=1'-0"

BUTLER AND RODMAN ARCHITECTS
56 WEST 45TH STREET NEW YORK CITY

The general shape of the building and the pleasant skyline should give a very satisfactory effect. The construction is simple and indicates the use of materials and workmanship easily procurable in almost any locality.

The second prize design, by John J. Roth of Los Angeles, also represents an economical type of construction, and the location of departments makes for efficiency of operation. The exterior is especially interesting in that attention has been given to form and color to an unusual degree.

The third prize design, by Ernest C. Hoedtke of Cambridge, Mass., is somewhat more expensive than the competition warranted, but the solution of the problem is one of the best.

Honorable mention was made of other designs so excellent that they ranked but a shade below the prize winners. The complete presentation of the series of designs and the findings of the jury, published in the *Modern Hospital* for May, June, July and August, should find a place in every architect's library.

ELOISE OLMSTED.

**Awards in the
Indianapolis
World War
Memorial
Competition.**

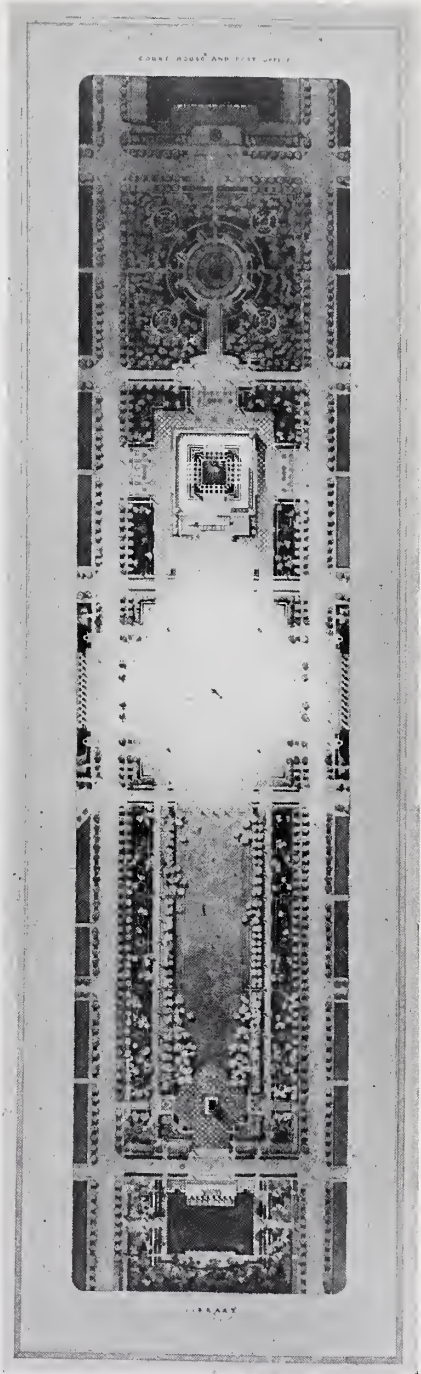
In the competition for the Indianapolis World War Memorial, first place was awarded to Walker & Weeks of Cleveland. The jury, which consisted of Henry Bacon, Charles A. Platt and Milton B.

Medary, stated in making the award that the winning firm had "presented indisputable evidence of being the best qualified of all the competitors to design and supervise the construction of the proposed memorial."

By the terms of the contest, free scope was given for the exercise of originality by the architect, with the understanding that although the winner was to be employed to carry out the project, the winning design need not be used in its entirety. However, Walker & Weeks' design, which is illustrated here, has proven so acceptable to the Memorial Commission that it will undoubtedly be executed virtually as shown.

The memorial will be the central feature of a group plan, with the new library at one end and the federal building at the other. Between are five city blocks, one of which will be occupied by the memorial, the others being developed as a formal mall or garden. At one end of the site a cenotaph will be erected to the memory of an unknown soldier.

The base of the memorial, which is two



Group Plan.
INDIANAPOLIS WAR MEMORIAL.
Walker & Weeks, Architects.



June, 1923

The Architectural Record

Winning Design.
INDIANAPOLIS WAR MEMORIAL COMPETITION.
Walker & Weeks, Architects.



Winning Design.
INDIANAPOLIS WAR MEMORIAL
COMPETITION.
Walker & Weeks, Architects.

hundred and eight feet square and twenty feet high, will contain rooms for the use of patriotic and civic organizations. Upon it will stand a structure ninety-six feet square and one hundred and seventy feet high, with a pyramidal roof. This will enshrine an heroic figure of Peace Triumphant.

The scheme provides that future building development adjacent to the mall shall be

restricted in height, type and material, so that eventually a consistent and harmonious whole will be attained.

Three prizes of \$12,000, \$10,000 and \$7,500 were offered to competitors, and the total commission of the winning firm is to be \$120,000. It is estimated that the cost of the memorial will be \$2,000,000.

I. T. FRARY.

The Architecture of Renaissance Spain—Its Future as an Adapted Style

It is an interesting architectural speculation to predict, if possible, the extent to which Spanish architecture may come to be adapted in this country, and to wonder if its popularity, or its application to a variety of uses will ever equal that of Italian architecture of the Renaissance. Spanish architecture certainly is not lacking in inherent interest and beauty, and in certain picturesque respects, as well as in its many unexpected phases of color and ornament, it excels the Italian. Its intensely national character, however, may make it less flexible, less adaptable to any great variety of modern American buildings.

It may very well be that lack of familiarity with its character and its mannerisms has restricted and largely prevented its adaptation, and that we may at some time be surprised by a sudden vogue for the Hispanic style among certain of our architects who are naturally attuned to it. There are evidences which might be regarded as the beginnings of such a popularity—here and there a hotel or apartment house lobby or a dwelling. One retarding factor is the dearth of informative illustration of the popular kind, though architects may avail themselves of a number of thoroughly prepared books of plates on the subject.

It is an interesting fact, nevertheless, that no books, however fine, will suffice to transplant an European architectural style to this country. More architects must travel in Spain; there must be a keen and well-sustained enthusiasm. It is true that many architects who have never travelled in Italy have designed in various adaptations of Italian Renaissance architecture, but seldom successfully. It is not so much a matter of needing scholarly proficiency, as of getting the "feel" of a style; it is a matter of assimilation and of perception rather than of knowledge and accuracy.

As to the suitability of Spanish architecture in this country, there is the ample

sanction of the first explorers and settlers in the Southwest and on the Pacific Coast, as far as concerns residences in those parts; the Spanish residence belongs nowhere else, excepting in Florida and in other extreme Southern states. There the climate and vegetation afford a natural setting. The case for city architecture is different. There is such a great stylistic latitude in hotels, apartment houses and like buildings that strict local suitability has become (unfortunately or otherwise, according to taste) a dead letter.

Interior decoration is a little more volatile than architecture and consequently more inclined to anticipate the popularity of new styles. It is not surprising, therefore, to find many decorators designing Spanish interiors, or to find the furniture manufacturers responding to the decorators, and perhaps anticipating the imminent demands of the architects for reproductions and adaptations of characteristic pieces of Spanish furniture.

Many are already to be had, and more are being contemplated for manufacture in the near future by some of the more ambitious furniture manufacturers.

It will be interesting to watch developments, and perhaps to recall in a year or two that in the spring of 1923 we were just around the corner from a widespread Spanish Renaissance phase of architectural adaptation.

MATLACK PRICE.

Messrs. Jones & Roessle, of New Orleans, and Clarence E. Olschner, of Shreveport, announce the formation of a co-partnership. They will continue the practice of architecture under the firm name of Jones, Roessle & Olschner, Architects, with offices in the Maison Blanche Building, New Orleans, La., and the Ardis Building, Shreveport, La.

Messrs. William M. Kenyon and Maurice F. Maine announce that Mr. Clarence J. Brown is now associated with them in the practice of architecture, with offices at 301-302-303 Essex Building, Minneapolis, Minn.

Mr. Norman-Bel Geddes announces the removal of his studio and home to 33 East 57th Street, New York City.

Mr. Nelson P. Rice has opened offices for the practice of architecture at 1503 Arcade Building, St. Louis, Mo., and will be pleased to receive manufacturers' catalogues.

Mr. Russell Seymour, Architect, announces the opening of an office for the general practice of architecture, at 220 Boyd Building,

Charleston, West Va. Manufacturers' catalogues and samples are requested.

Mr. Willard M. Ellwood has resigned his position as architect and structural engineer for the H. G. Christman Company and has opened an office at 220 West Jefferson Boulevard, South Bend, Ind., for the general practice of architecture.

Mr. Walter B. Phillips, Architect, announces the opening of his office at 307 South Hill Street, Los Angeles, Cal., for a general professional practice. Mr. Phillips has been a resident of New York City for the past seven years and was for some time associated with Messrs. York and Sawyer, Architects, in whose office his most recent work was in charge of job management on the Pershing Square Office Building, at Park Avenue and Grand Central Terminal, New York City. Mr. Phillips is desirous of receiving literature and manufacturers' samples.

Mr. Robert J. Reiley, Architect, announces the removal of his office to larger quarters at 50 East 41st Street, New York City.

Messrs. Willard Osler and Lee Burns announce the opening of an office for the practice of architecture at 241 North Pennsylvania Street, Indianapolis, Ind.

The New York office of Messrs. John Mead Howells and Raymond M. Hood, Associated Architects, will be at 18 East 41st Street, New York City, after May 1, 1923. The personal office of Mr. John Mead Howells will remain as before, at 367 Lexington Avenue, New York City.

The architectural practice and the offices of the late T. E. Billquist, at 323 Fourth Avenue, Pittsburgh, Pa., have been acquired by Mr. Francis A. Berner, Registered Architect, of the same address.

Mr. Walter G. Memmler, Architect, announces the opening of an office for the practice of architecture at 300 Watkins Building, Milwaukee, Wis. Manufacturers' catalogues and samples requested.

Messrs. Edward H. and C. D. Slater have recently opened an office in the Pollock Building at Mobile, Ala.

Mr. Max Mayer has recently opened an office in the Southern Trust Building, Little Rock, Ark.

Messrs. Oman & Lilienthal, Architects and Engineers, announce the formation of a partnership for the practice of architecture and engineering, with offices at 64 West Randolph Street, Chicago, Ill.

Mr. Alexander W. Norman has announced the opening of an office at 306 Louisiana Building, New Orleans, La.

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